THE UNIVERSITY OF ALBERTA

A COMPARATIVE STUDY OF THE NURSING PERFORMANCE OF REGISTERED NURSES AWAITING ENTRY TO A POST-R.N. BACCALAUREATE PROGRAM WITH A GROUP OF RECENT GRADUATES

by

© Darlene J. Elliott

A THESIS
SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF EDUCATION

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

EDMONTON, ALBERTA

Fall, 1982

Microfilming

THE UNIVERSITY OF ALBERTA

RELEASE FORM

NAME OF AUTHOR: DARLENE J. ELLIOTT

TITLE OF THESIS: A COMPARATIVE STUDY OF THE NURSING PERFORMANCE OF REGISTERED NURSES AWAITING ENTRY TO A POST-R.N.BACCALAUREATE PROGRAM WITH A GROUP OF RECENT GRADUATES

DEGREE FOR WHICH THESIS WAS PRESENTED: MASTER OF EDUCATION

YEAR THIS DEGREE GRANTED: 1982

Permission is hereby granted to THE UNIVERSITY OF ALBERTA LIBRARY to reproduce single copies of this thesis and to lend or sell such copies for private, scholarly or scientific research purposes only.

The author reserves other publication rights, and neither the thesis nor extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

Signed: Darlene J. Elliott

PERMANENT ADDRESS:

11436 - 32 Avenue
Edmonton, Alberta
T6J 3H5

Dated: August 19, 1982

THE UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled A COMPARATIVE STUDY OF THE NURSING PERFORMANCE OF REGISTERED NURSES AWAITING ENTRY TO A POST-R.N. BACCALAUREATE PROGRAM WITH A GROUP OF RECENT GRADUATES submitted by Darlene J. Elliott in partial fulfilment of the requirements for the degree of Master of Education .

Supervisor

Date: July 15, 1982

ABSTRACT

The purpose of this study was to identify selected characteristics of registered nurses awaiting entry to a Post-R.N. baccalaureate program in Western Canada and 1981 graduates of the program and to compare their performance of activities in the five nursing dimensions of: leadership, teaching, planning, communications, and professional development.

Data were collected using a questionnaire comprised of two sections: (1) General Information, and (2) the Five Dimensional Scale of Nursing Performance. The questionnaire was subjected to Cronbach's alpha and reliabilities ranged from a low of .85 for the leadership sub-scale to a high of .95 for the teaching subscales. Data from 67 completed questionnaires (36 nurses awaiting entry and 31 graduates) were analyzed.

Data were processed using the Statistical Package for the Social Sciences (Nie et al: 1975). The following analyses were used in this study: factor analysis (oblique rotation), Cronbach's alpha, frequency and percentage distribution, Pearson's correlation, t-tests, ANOVA, step-wise multiple regression and content analysis.

Analysis of the data indicated that the graduates reported significantly improved performance of the activities in all the nursing dimensions. The graduates reported they performed activities in the dimensions of leaderhip, teaching, and planning significantly better than the nurses awaiting entry to the program. Both the nurses awaiting entry to the program and the graduates reported they performed best in the nursing dimensions of IPR/communications and professional development. The graduates reported that they required a degree to function in the

positions they held since graduation. The graduates had changed their position title from "staff nurse" to "instructor" or "community health nurse." "Mid-range" scorers on registered nursing exams reported significantly better performance than did those scoring "low" or "high". Nurses who completed the degree "to obtain more satisfying work" or "for personal satisfaction" reported significantly better performance than did those who completed the degree "to change their field of work."

ACKNOWLEGEMENTS

The author wishes to sincerely thank Dr. D.A. MacKay, thesis advisor, for his scholarly advice and enlightened approach during the development of this study and preparation of the thesis.

The intensive support and involvement of Committee members, Dr. P.A. Field, Faculty of Nursing Advisor, and Dr. A.G. Konrad is greatly appreciated.

Special thanks to Mrs. C. Prokop for her assistance in the preparation of the computer programs used in the data analysis.

The expert advice, support, and encouragement of members of the Faculty of Nursing during the various phases of the study is appreciated. In addition, the support and response of the registered nurses who took part in the study is most appreciated and encouraging.

Appreciation is extended to P. Klinck, C. Lirette, and Donnic Word Processing for typing the manuscripts.

Finally, the author wishes to thank her husband Blake and daughters, Chelsea and Heather for their support, patience, and tenacity; and congratulate them on surviving "the year without mom."

TABLE OF CONTENTS

CHAPTER		PAGE
I.	STATEMENT OF THE PROBLEM AND ITS SIGNIFICANCE	1
	Introduction	1
	Statement of the Problem	3
	Importance of the Study	4
	Definition of Terms	5
	Deliminations and Limitations	7
	Organization of the Thesis	8
II.	REVIEW OF RELATED LITERATURE AND RESEARCH	10
	Introduction	10
	Evaluation Defined	11
	Evaluation and Research	12
	Methodologies of Evaluation	16
	Current Trends in Evaluation of Nursing Programs	20
	Evaluation of Nursing Education Programs	25
	Role of the Evaluator	25
	Procedures Utilized	27
	Measuring Instruments	31
	Research on Nursing Education Programs	34
	Summary	37
III.	DESIGN, APPROACH AND PROCEDURES	38
	Design of the Study	38
	Theoretical Approach for Follow-up Evaluation	40
	The Reform of Program Evaluation	41
	An Approach for Planning Follow-up Evaluation	41

CHAPTER PAGE

Identification of Observations to be Made 50

Relationships to be Examined 51

Summary of the Theoretical Approach 56

Development of the Instrument 57

Choice of the Instrument 57

General Information Section 57

Five-Dimension Scale of Nursing Performance 58

Validation of the Instrument 59

The Final Instrument 60

Factor Analysis of the Five Dimensions 61

Reliability of the Five Dimension Scale 65

The Sample 66

Data Collection 66

Treatment of the Data 68

Summary 69

IV. ANALYSIS AND FINDINGS 70

Problem 1 71

Characteristics of Nurses Awaiting Entry to a Post-R.N. Program 71

Findings 71

Summary Profile of the Special Students 79

Characteristics of Graduates of the Post-R.N. Program 81

Findings 81

Summary Profile of the Graduates 92

Similarities and Differences In the Characteristics of the Special Students and the Graduates 92

CHAPTER PAGE

Summary of Characteristics of the Special Students and the Graduates 94

Problem 2 94

Special Students' Performance of Nursing Activities 94

Findings 95

Summary of Special Students' Performance of Nursing Activities 102

Graduates' Performance of Nursing Activities 102

Findings 102

Similarities and Differences in the Reports of the Special Students and the Graduates of How Frequently and How Well They Perform Nursing Activities 119

Summary of Reported Performance of Nursing Activities by Special Students and Graduates 121

Problem 3 122

Significant Differences Between the Self-Reports of Nursing Activity Performance of the Special Students and the Graduates Before Entering the Degree Program 122

Findings 122

Discussion of Findings 124

Summary 124

Problem 4 124

Significant Differences Between the Self-Reports of Nursing Activity Performance of the Special Students and Graduates After Completing the Degree Program 125

Findings 125

Discussion of Findings 125

Summary 125

CHAPTER PAGE

Problem 5 127

Significant Differences in the Self-Reports of Graduates' Nursing Activity Performance Before Entering the Degree Program and After Completing the Program 127

Findings 127

Discussion of Findings 129

Summary 129

Problem 6 130

Significant Relationships Between Selected Characteristics and Reported Performance by the Special Students of Activities in the Selected Nursing Dimensions 130

Findings 130

Summary of Findings About the Significant Relationships Between Selected Characteristics and Reported Performance of Activities In the Nursing Dimensions of the Special Students 141

Problem 7 142

Significant Relationships Between Selected Characteristics and Reported Performance by the Graduates of Activities in the Selected Nursing Dimensions 142

Findings 142

Summary of Findings About the Significant Relationships Between Selected Characteristics and Reported Performance by the Graduates of the Activities in the Nursing Dimensions 164

Summary of Data Analysis and Findings 165

V. SUMMARY, CONCLUSIONS AND IMPLICATIONS 167

Summary 167

Purpose 168

CHAPTER PAGE

Problems 168

Methodology 169

Data Analysis 170

Findings 171

Characteristics of Nurses Awaiting Entry to A Post-R.N. Program 171

Characteristics of Graduates of A Post-R.N. Program 171

Performance of Nursing Activities by Nurses Awaiting Entry to A Post-R.N. Program and Graduates of the Program 172

Differences in the Performance of Nursing Activities Between Nurses Awaiting Entry to A Post-R.N. Program and Graduates Before They Entered the Program 172

Differences In The Performance of Nursing Activities Between Nurses Awaiting Entry to A Post-R.N. Program and Graduates of the Program 173

Differences In the Performance of Nursing Activities Between Graduates Before They Entered the Post-R.N. Program and After Graduating from the Program 173

Relationships Between Characteristics of Nurses Awaiting Entry to A Post-R.N. Program and Performance 174

Relationships Between Characteristics of the Graduates and Performance 174

Conclusions 177

Recommendations 179

BIBLIOGRAPHY 181

CHAPTER PAGE

APPENDICES

APPENDIX A: Questionnaire 187

APPENDIX B: Correspondence 208

APPENDIX C: Factor Analysis 213

APPENDIX D: Respondent Comments 227

APPENDIX E: Multiple Regression: Special Students 250

APPENDIX F: Multiple Regression: Graduates 253

LIST OF TABLES

TABLE	DESCRIPTION	PAGE
2.1	Conditions under which to use process or product evaluation	24
3.1	Five Dimensions of Nursing Performance	62
3.2	Factor Loadings for Schwirian's Six-D Scale of Nursing Performance	214
3.3	Factor Loadings for Schwirian's constructs based on combined responses of special students, graduates before entering degree program and graduates after completing degree program	215
3.4	New constructs based on factor loadings of combined responses of special students, graduates before entering degree program and graduates after completing degree program	220
3.5	Reliability of Activity Scales using Schwirian's constructs and combined responses of self-appraisals	65
3.6	Distribution and Return of Questionnaires	67
4.1	Special Students: Demographic Characteristics	72
4.2	Special Students: Academic Characteristics	74
4.3	Special Students: Basic Nursing Education Characteristics	76
4.4	Special Students: Post-R.N. Baccalaureate Education	78
4.5	Special Students: Nurse Career Behavior Characteristics	80
4.6	Graduates: Demographic Characteristics	82
4.7	Graduates: Academic Characteristics	83
4.8	Graduates: Basic Nursing Education Characteristics	86
4.9	Graduates: Post-R.N. Baccalaureate Education	87
4.10	Graduates: Nurse Career Behavior Characteristics	90

TABLE	DESCRIPTION	PAGE
4.11	Special Students: Frequency of activity performance and self-reports of how well they performed nursing activities in current job	96
4.12	Special Students: Mean of self-reported quality of performance of nursing activities	101
4.13	Graduates: Self-reports of frequency of activity performance before entering degree program and after completing degree program	103
4.14	Graduates: Distribution of self-reports of how well they perform nursing activities before entering degree program and after completing degree program	111
4.15	Graduates: Mean of reported quality of performance of nursing activities	117
4.16	Graduates: Difference in reported performance of nursing activities	118
4.17a	Comparison of self-reports of performance on activity scales of special students in current job and graduates before entering the program	123
4.17b	Comparison of self-reports of performance on activity scales of special students in current job and graduates after completing the degree	126
4.18	Graduates: Comparison of self-reports of performance on activity scales before entering the degree program and after completing the degree program	128
4.19	Special Students' Summary Table: Comparison of reported performance on activity scale by the characteristics	131
4.20	Special Students: Comparison of self-reports of performance on activity scales, by effectiveness of basic program	133
4.21	Special Students: Comparison of self-reports of performance on activity scales, by planning to complete the degree	134
4.22	Special Students: Comparison of self-reports of performance on activity scales, by years of experience	135

TABLE	DESCRIPTION	PAGE
4.23	Special Students' Summary Table: Nursing Performance Dimensions With A Significant Amount of Variance Accounted for By the Variables	137
4.24	Special Students: Proportion of variance predicted in the self-reports of performance of Planning/ Evaluation Activities for the selected variables	139
4.25	Special Students: Proportion of variance predicted in the self-reports of performance of Professional Development activities for the selected variables	140
4.26	Graduates' Summary Table: Comparison of reported performance on activity scale before entering the degree program and after graduating from the program, by the characteristics	144
4.27	Graduates: Comparison of self-reports of performance on activity scales before entering the degree program, by title of position before entering degree program	145
4.28	Graduates: Comparison of self-reports of performance on activity scales after completing the degree program, by effective job functioning without degree	146
4.29	Graduates: Comparison of self-reports of performmance on activity scales after completing the degree, by effectiveness of Post-R.N. Program	148
4.30	Graduates: Comparison of self-reports of performance on activity scales after completing the degree, by major outcome of obtaining a degree	149
4.31	Graduates' (before entering degree program) Summary Table: Nursing Performance Dimensions With A Significant Amount of Variance Accounted for by the Variables	151
4.32	Graduates: Proportion of variance predicted in the self-reported performance of Teaching/Collaboration activities before entering the degree program for the selected variables	152
4.33	Graduates: Proportion of variance predicted in the self-reported performance of IPR/Commuinication activities before entering the Post-R.N. program for the selected variables	154

TABLE	DESCRIPTION	PAGE
4.34	Graduates' (after completing the degree program) Summary Table: Nursing Performance Dimenions With A Significant Amount of Variance Accounted for by the Variables	156
4.35	Graduates: Proportion of variance predicted in the self-reported performance of Leadership activities after completing the degree program for the selected variables	157
4.36	Graduates: Proportion of variance predicted in the self-reported performance of Teaching/Collaboration activities after completing the degree program for the selected variables	158
4.37	Graduates: Proportion of variance predicted in the self-reported performance of Planning/Evaluation activities after completing the degree program for the selected variables	160
4.38	Graduates: Proportion of variance predicted in the self-Reported performance of IPR/Communication activities after completing the degree program for the selected variables	161

LIST OF FIGURES

FIGURE	DESCRIPTION	PAGE
3.1	The Static-Group Comparison	39
3.2	Factors to be Considered When Planning and Conducting the Evaluation	42
3.3	Variables to be Observed	52
3.4	Box-To-Box Observations	53
3.5	Within-Box Observations	54
3.6	Box_x $Element_i$-to-Box_y $Element_j$ Observations	55
3.7	Box_x-To-Box_y $Element_j$ Observations	55

CHAPTER I

STATEMENT OF THE PROBLEM AND ITS SIGNIFICANCE

Introduction

Nurses in Western Canada enter practice after completing one of a number of possible training programs. A student who has successfully completed a three-year hospital-based diploma program, a two-year college diploma program, or a four-year university baccalaureate program is deemed to have the required qualifications for nursing practice. In Western Canada, the baccalaureate may be obtained by completing one of two types of programs: the basic baccalaureate program leading to both a degree and the R.N. diploma, or, the Post-R.N. baccalaureate program.

The Report of the Alberta Task Force on Nursing Education (1975) recommended that by 1990 the minimum educational preparation for professional nursing be the baccalaureate degree. Controversy exists within the profession concerning the suggested requirement of a baccalaureate degree as the minimum educational preparation for professional nursing, although it has recently received national backing by the Canadian Nurses Association. There have been several position papers prepared in the Province of Alberta related to this recommendation.

The Alberta Association of Registered Nurses, in a Position Statement on Baccalaureate Education for Nurses (1979), supported the recommendation of the Baccalaureate as the minimum educational preparation for professional nursing in Alberta and Canada. The Summary of Responses to the Report of the Alberta Task Force on Nursing Education (1978) reflected the continuing dilemma surrounding this issue. Among the concerns raised regarding the recommendation arose one most salient question, "Does a better educated nurse necessarily imply nursing care of a higher quality?" (Summary of Responses, 1978:7). Respondents suggested that several matters merited further study before adopting the recommendation. One proposed study was a comparison of work patterns and performance of diploma and degree nurses in Alberta (Summary of Responses, 1978:8).

The Department of Advanced Education and Manpower on behalf of the Government of Alberta presented a response in its Position Paper on Nursing Education: Principles and Issues (1977) and did not support the recommendation making the baccalaureate degree in nursing a mandatory requirement for practice. This response recognized, however, that the baccalaureate was desirable for an increased number of nurses. The Position Paper of the Government (1977) also supported further study and discussion clarifying the scope of nursing practice.

The nursing literature consistently stresses the need for better qualified nurses in positions of leadership, teaching, planning and evaluating. Nurses are responding to this need by enrolling in basic baccalaureate and Post-R.N. baccalaureate programs. The University of Alberta Faculty of Nursing also responded to this need by increasing the quota of placements in the Post-R.N. program from 72 to 144.

The basic question still remains, "Does a better educated nurse imply nursing care of a higher quality?" The public, the nurses themselves, as well as the educators deserve careful answers to this question. The recommendation from the Task Force (1975:125) supported research with respect to a number of areas, among them, follow-up studies of graduates.

Statement of the Problem

The purpose of this study was to identify selected characteristics of registered nurses awaiting entry to a Post-R.N. baccalaureate program and those who graduated from such a program in 1981 and to compare the performance of activities in five nursing dimensions of the nurses awaiting entry to the program and after graduating from the program.

Analysis of the data was used to answer the following research questions about the two groups.

1. What are some selected demographic, academic, basic education, Post-R.N. education, and nurse career behavior characteristics of nurses awaiting entry to the Post-R.N. Baccalaureate program and graduates of the program?

2. What are the self-reports of nurses awaiting entry to a Post-R.N. program and those who have graduated from the program of how frequently and how well they perform selected nursing activities?

3 Are there statistically significant differences in the self-reports of how well they perform selected nursing activities between nurses awaiting entry to a Post-R.N. program and graduates before they entered the program?

4. Are there statistically significant differences in the self-reports of how well they performed selected nursing activities between nurses awaiting entry to a Post-R.N. program and graduates after completing the program?

5. Are there statistically significant differences between the self-reports of how well the graduates of a Post-R.N. program performed selected nursing activities before entering the Post-R.N. program and how well they perform those activities after graduating from the program?

6. Are there statistically significant relationships between the selected characteristics and how well nurses awaiting entry to a Post-R.N. program report they perform selected nursing activities?

7. Are there statistically significant relationships between the selected characteristics and how well graduates of a Post-R.N. program report they perform selected nursing activities?

Importance of the Study

Follow-up studies on program graduates provide one useful source of performance information. Few Canadian studies have been carried out to determine what, if any, differences exist between the performance of graduates of different types of nursing programs, and more specifically Post-R.N. programs. In addition to shedding light on performance differences, such a study has other merits. The findings may directly assist a faculty in ongoing course revisions and in establishing future policies guiding program administration and planning. Results of the study may also be of interest to the Alberta Association of Registered Nurses, the Canadian Nurses Association, and the Department of Advanced

Education and Manpower as they plan programs and develop policies and positions on nursing education.

The University Faculty of Nursing has consistently recognized the value of follow-up studies (Hayes, 1975; Field, 1978) and expressed an interest in supporting this study.

Definition of Terms

Registered Nurse. In Alberta, a Registered Nurse is a graduate from an approved School of Nursing who holds active membership in the Alberta Association of Registered Nurses (Royal Statutes of Alberta, 15, c. 283, 5.5; 1960, c. 89, s. 3; 1966, c. 87, s. 3).

Post-R.N. Program for Registered Nurses. The program is designed to prepare registered nurses for positions in health agencies such as hospitals, voluntary and official health agencies, and schools of nursing. One academic year as a full-time intramural student at the University of Alberta Faculty of Nursing is required and students are granted five years from the time of admission to the program to complete requirements for the degree (University of Alberta, Faculty of Nursing Calendar, 1978/79, Sec. 131.2.2(2)).

Sepcial Students at the University of Alberta. Special students have been permitted to register in one or more courses, but not officially for credit towards a degree or diploma at this or any other institution (University of Alberta, Special Sessions Calendar, 1981-82, Section

26.1 5.3(2)). Hereafter, in this study, a special student refers to a Registered Nurse without a degree who is awaiting entry to the Post-R.N. baccalaureate program and is enrolled as a special student in non-nursing courses at the University of Alberta for the 1981-1982 calendar year.

Demographic. Refers to information about: the age, sex, marital status and number of children of the respondents.

Academic. Refers to information about: the respondent's scores on the graduate nursing (R.N.) and university (G.P.A.) exams.

Basic Education. Refers to information about: the type of program graduated from, year of graduation, and statements about the effectiveness of the program.

Post-R.N. Education. Refers to information about: years required to obtain the degree, required pre-requisite courses, program effectiveness, beliefs about the degree, plans to complete the degree, and expected major outcome of the degree.

Nurse Career Behavior. Refers to information about: the type of employment, years of experience, title of position, necessity of having a degree to do job, and self-reports about the frequency and quality of performance of activities in the five dimensions of nursing.

Five Dimensions of Nursing Performance. Refers to the activities of leadership, teaching/collaboration, planning/evaluation, interpersonal relationships, hereafter referred to as IPR/Communication, and professional development as developed and described by Schwirian (1978b:349).

Delimitations

1. Timing of the study. The graduates gained their degrees in April and November of 1981. The period of employment since graduation was therefore variable. Since these graduates worked as registered nurses before entering the program, this factor was not felt to be a biasing factor in this study.

2. Subjects. Only registered nurses enrolled as special students and registered nurses who graduated from the Post-R.N. program in 1981 at the University of Alberta were included in this study.

Limitations

1. Sample. The study investigated only subjects from selected programs, i.e., special studies and one Post-R.N. baccalaureate program. The findings may not be generalizable to students from other types of programs or to other nurses awaiting entry to a Post-R.N. program.

2. Variables. The study investigated selected subject characteristics and nursing performance behaviors. The findings may not be generalizable to all nursing characteristics or behaviors, nor can the study be viewed as a comprehensive follow-up of the 1981 Post-R.N. baccalaureate graduate.

3. The comparison group. Nurses enrolled as special students at the same University were considered to be the comparison group. This group could not be considered as homogeneous as a group of nurses who had entered the first week of the Post-R.N. baccalaureate program. However, they were considered to be more homogeneous than the general population of nurses in the province who did not have a baccalaureate degree and more appropriate than a group of nurses who at the time of the study had been enrolled for seven months in the first year of the program.

4. Instrumentation. A survey questionnaire was used to collect data about selected characteristics and self-reports of nursing performance. Data validity was limited by the responses to the questionnaire items.

Organization of the Thesis

This chapter included an introductory description of the area of research. The six problems were identified. The importance of the

study was discussed, followed by an outline of the delimitations and limitations.

A review of literature relevant to this study is presented in Chapter II. Chapter III follows, in which the methodologies and procedures are described, including a theoretical approach, the study design, instrument development, sampling techniques, and data collection and analysis procedures.

Chapter IV is comprised of the data analysis and resultant findings.

Finally, in Chapter V the conclusions and recommendations of the study are presented.

CHAPTER II

REVIEW OF RELATED LITERATURE AND RESEARCH

This review of the literature is divided into the following sections. In the first, evaluation is examined from a definitive standpoint; in the second, the dilemma surrounding evaluation and research is explored. In the third section the various methodologies of educational evaluation are reviewed. Current trends in nursing program evaluation are presented, and finally nursing education program evaluation studies are reviewed.

Introduction

Torres (1974), as reported by Hayter (1978:384), stated her belief in the need for curriculum evaluation in nursing when she said, "We will never move ahead in nursing education until we learn to evaluate before we change what we are doing." In a discussion of nursing programs and cost accountability, Hayter (1978) felt that citizens would be justified in expecting evidence that tax dollars allocated to nursing education produced tangible benefits. The Joint Committee on Standards for Educational Evaluation (1981:5) explained the rationale for their study with this thought:

> The Joint Committee was guided by the assumption that evaluation is an inevitable part of any human undertaking and by the belief that sound evaluation can promote the understanding and improvements of education while faulty evaluation can impair it.

These writers expressed their beliefs on the need to carry out evaluation activities. What, then, is evaluation?

Evaluation Defined

Webster's Dictionary (1978) defines evaluation as an estimate of worth. Tyler (1949:105), whose work became an early milestone in evaluation, wrote:

> Evaluation becomes a process for finding out how far the learning experiences as developed and organized are actually producing the desired results and the process of evaluation will involve identifying the strengths and weaknesses of the plan.

Cronbach (1963) as reported by Worthen and Sanders (1973:44) broadly defined evaluation as "The collection and use of information to make decisions about an educational program." He proposed that the main objective for evaluation was to uncover durable relationships---those appropriate for guiding future educational programs. Scriven (1967), in his paper, "The Methodology of Evaluation", discussed evaluation in terms of roles and goals. He claimed that the main functional goal of evaluation was to determine the worth or merit of something. Stake (1967) suggested that evaluation involved the acts of description and judgement which resulted in generalizations about educational practices. Stufflebeam (1971), envisioned evaluation as a process of delineating, obtaining, and providing useful information for arriving at decision alternatives. According to Provus (1969) as reported by Worthen and Sanders (1973:172), the purpose of evaluation was "To

determine whether to improve, maintain, or terminate a program." He went on to explain:

> Evaluation is the process of (a) agreeing upon program standards, (b) determining whether a discrepancy exists between some aspect of the program and the standards governing that aspect of the program, and (c) using discrepancy information to identify the weaknesses of the program.

The Joint Committee on Standards for Educational Evaluation (1981:12) defined evaluation as "the systematic investigation of the worth or merit of some object."

Worthen and Sanders (1973), McNeil (in Bellack:1977) and MacKay and Maquire (1971) offered extensive reviews of the state of the art of evaluation and reached no one definition or approach. It becomes abundantly evident that a universal definition of evaluation does not exist.

It is not the purpose of this study to solve the definitional dilemma surrounding evaluation. For the purpose of this study, the definition of evaluation is "a process for finding out to what extent the curriculum as developed and organized is producing the desired results" (Field 1978:3).

Evaluation and Research

If the first dilemma surrounding evaluation is definition, the second is the debate on whether evaluation is research. Luker (1981) drew heavily on the work of Suchman (1967) when she discussed

evaluation research in nursing. She referred to Suchman's distinction between evaluation and evaluation research:

> Evaluation...refers to the everyday occurrence of making judgements of worth.... When used this way, it refers only to the process of assessment or appraisal of worth. Evaluation research...implies the utilization of scientific methods and techniques for the purpose of making an evaluation.....it refers to those procedures for collecting and analysing data which increases the possibility for proving rather than asserting the worth of some social activities. (Luker, 1981:87)

Luker (1981:87) continued, "Evaluation research may be described as applied research where the major aim is not the generation of new knowledge but the study of the application of existing knowledge." Allen, (1969) in her discussion of evaluative research in nursing education, claimed that evaluative research represented an attempt to utilize the scientific method to assess the worth of an activity in reaching particular objectives.

Worthen and Sanders (1973:14) when discussing evaluation and research, stated, "Both use systematic inquiry techniques, although for different purposes - research to produce new knowledge and evaluation to judge worth or social utility." They concluded that the commonalities between research and evaluation made it difficult to classify some activities unequivocably as being in either category. They listed twelve characteristics of inquiry which distinguished basic research from outcome evaluation:

1. Motivation of the researcher. Research satisfies curiosity; evaluation contributes to a practical problem solution.

2. Objective of the search. Research seeks conclusions; evaluation leads to decisions.

3. Laws vs. descriptions. Research is a statement of the relationship among two or more variables; evaluation describes a particular thing with respect to one or more scales of values.

4. Role of explanation. Scientific explanation requires scientific laws and the disciplines related to education appear to be far from discovery of the general laws on which explanations of incident of school will be based.

5. Autonomy of the inquiry. Evaluation is undertaken on the behest of a client, but the researcher sets his own problems.

6. Properties of the phenomena which are assessed. Educational evaluation is an attempt to assess the worth of a thing; educational research is an attempt to assess scientific truth.

7. Generalizability of the phenomena studied. Evaluation looks at time-linked, geography-linked, and specific instance-linked phenomena; the concepts of educational research should be relatively permanent.

8. Salience of the value question. The difference here between research and evaluation is one of degree, not of kind.

9. Investigative techniques. Researchers and evaluators both must include skills development in general educational research methodology.

10. Criteria for judging the activity. Internal and external validity are the two most important criteria for judging the adequacy of research; isomorphism and credibility are the criteria of adequate evaluation.

11. Disciplinary base. The evaluator needs to employ a wider range of inquiry perspective and techniques than the researcher to deal with questions that do not have predestined answers.

12. Training. The best training for the educational researcher may be a thorough mastery of a traditional social science discipline. The training

> of evaluators involves sampling several disciplines. (Worthen and Sanders, 1973:27-28).

Those involved in educational evaluation would not reach agreement regarding the above twelve characteristics. However, these do present a useful schema to examine evaluation. McNeil's extensive bibliographical essay in Bellack (1977:638) alluded to the same problem:

> While the term evaluation appears most commonly in educational literature as 'elaborating bureaucratic structures for comparing the measured effectiveness of experimental programs,' just what evaluation research is and what direction it should take are hotly disputed.

One alternative approach to this dilemma surrounding evaluation was that taken by the Joint Committee on Standards for Educational Evaluation (1981). The committee defined standards as, "Principles commonly agreed to by people engaged in the professional practice of evaluation for the measurement of the value or the quality of an evaluation" (The Joint Committee, 1981:12). The Joint Committee (1981) saw the crucial objective in developing the standards as ensuring that evaluations would be conducted effectively, fairly, and efficiently. They saw the benefits from developing the standards as the development of:

> ...a common language to facilitate communication and collaboration in evaluation; a set of general rules for dealing with a variety of specific evaluation problems; a conceptual framework by which to study the often-confusing world of evaluation; a set of working definitions to guide research and development on the evaluation process; a public statement of the state of the art in educational evaluation; a basis of self-regulation and accountability by professional evaluators; and an aid to developing public credibility

for the educational evaluation field. (Joint Committee, 1981:6).

No attempt was made to prove that this study was or was not research. Rather, the investigator was cognizant of the broad ideals towards which the Standards for Evaluations of Educational Programs developed by the Joint Committee were aimed.

Methodologies of Evaluation

When examining a large body of information related to a specific field, it may be useful to group the information into categories; such is the case with evaluation.

Worthen and Sanders (1973) grouped evaluation information according to similarities and differences in the evaluation strategies proposed. The first grouping called judgmental strategies required the evaluator to play a judgmental role. The work of Cronbach (1963), Scriven (1967), and Stake (1967) fell into this grouping. The second grouping was labelled as the decision-management approach to evaluation. The plans proposed by Stufflebeam (1971) and Alkin (in Worthen and Sanders, 1973:150) were included here. The third grouping was categorized as decision-objective plans and included the approaches of Tyler (1949) and Provus (1969).

MacKay and Maquire (1971) reviewed the various models in a chronological fashion. Tyler's model was reviewed in terms of merits and difficulties. Tyler (1949:106) commented:

> evaluation is the process of determining to what extent the educational objectives are actually being realized by the program of curriculum and instruction...evaluation is the process for determining the degree to which these changes in behavior are actually taking place.

MacKay and Maquire (1971) suggested that the Tyler model provided reliable, valid, and objective data to evaluate. The problems which arose were: tedious procedures, restriction to stated objectives, and avoiding questions of worth of the objectives. Comparative techniques in evaluation, such as the work of Campbell and Stanley (1963) were examined. The problem here was one of stringent validity. McNeil (1977:639) explored the same problem suggesting, "Such research is most directly linked with policy and so should be the most closely scrutinized, yet the scrutiny often aims at the techniques of evaluation rather than the assumptions behind them." In 1963 Cronbach raised questions which influenced the future course of evaluation. Evaluation should answer questions of both what the effects of curriculum were and how the effects were achieved. A variety of instruments would be required to achieve this.

MacKay and Maquire (1971) cited Scriven as the man who synthesized evaluation output of the sixties. Scriven (1967) differentiated between the roles and the goals of evaluation. The roles might vary, but the goal was to estimate worth. He also clarified the distinction between formative and summative evaluation. Scriven attempted to take a more global approach to evaluation, but was criticized for not providing the "nuts-and-bolts" kinds of answers which the practicing evaluator required.

Many of the authors attempted to provide specific models to meet specific evaluator needs. The work of three of those authors, Stake, Stufflebeam and Provus will now be reviewed.

Stake's (1967) approach attempted to attend to the "whys" of evaluation outcomes. This was accomplished by dividing evaluation data into two dimensions. One dimensions divided data into descriptions and judgments. The second dimension classified data as antecedent, transaction, or outcome. The evaluator then determined the degree of relationship and agreement among the various classes of data. This model was criticized for its vagueness. While possible relationships stood more chance of being noticed they also might not be thoroughly investigated.

Stufflebeam (1971) developed a model based on decision-making. This model was also described as an administration model. It was called the CIPP model after the four stages: Context, Input, Process and Product Evaluation. Context Evaluation identified and assessed needs and the problems underlying the needs, clarifying the setting and the goals. Input Evaluation assessed system capabilities, input strategies, and designs for implementing the strategies. This input stage was useful for selecting sources of support, kinds of strategies to be used for problem solution, and procedural design. Process Evaluation identified and predicted defects in the design or implementation. This process stage was useful for implementing and refining the program. Product Evaluation related outcomes to objectives, context, input and process information. This product stage

was necessary to decide whether to continue, modify or discontinue the program.

The final model reviewed was the systems model of Provus (1969). He described four stages of evaluation which corresponded to the stages of program development: Definition, Installation, Process and Product. Three major content categories were simultaneously examined: Inputs, Processes, and Outcomes.. Some similarities existed between the models of Provus and Stake.

This review of evaluation methodologies was necessary for one to understand evaluation of nursing education programs. A review such as this also served another important purpose, it pointed out the danger and the restrictions imposed by labelling the works of the pioneers in educational evaluation. Many of the models included both process and product evaluation. Systems theory was attended to by a number of the models. The very nature of evaluation assumed that discrepancy between what was expected and what was actual would be examined. A number of the models could be viewed as formative or summative depending on the stage of evaluation with which one was dealing. MacKay and Maquire (1971:16) referred to the same problem, "To some extent the same interrelationships exist among all models of evaluation." Rather than focus on the lack of agreement among the models, it would be advantageous to look for the strengths within the models.

This study was not based on a specific evaluation model. The focus was primarily on product evaluation. It was summative, but the results could be useful for curriculum revision. It examined program objectives. It focused on outcomes. It involved comparing

characteristics and performance of a group before entering a program and after graduating from a program. It was hoped that this rather eclectic approach proved to be a strength of the study.

Current Trends in Evaluation of Nursing Programs

The idea of evaluating health care services and programs was not new. Florence Nightingale collected data regarding living accommodations of patients to persuade the Hospital Board of Governors where to locate a new hospital. Luker (1981:89) alluded to the need for evaluation of services:

> The greater emphasis now placed on health care services stems from the escalating costs...doctors and nurses alike are forced to look for verifiable facts to assist them in establishing a convincing case worthy of continued or additional financial support...answers to urgent questions concerning the prediction of outcome in health service policy decisions cannot be left exclusively to the economist.

These concerns could also be applied to nursing education. Among the purposes of any education program is the need to assess whether the program objectives have been achieved. Keeler (1972:316) reflected these concerns as they related specifically to nursing programs:

> We now recognize the need for more objective and better ways to determine whether our programs are achieving the goals that we set for them...we are being challenged to produce evidence of the effectiveness and the efficiency of our services...we must show what difference it made...and whether the services provided were of high quality, achieved the goals of the service program, and were related to identifiable needs.

Williams (1975:172) recognized the need for evaluation of programs which prepared nurses to assume expanded roles:

> With the advent of formal educational programs to prepare nurses for various types of expanded roles has come the need to evluate the contribution that graduates of these programs are making to health care delivery. An equally important need is to assess the varied factors that are associated with their performance.

One concludes very quickly that program evaluation is necessary. Having decided to do a program evaluation, one asks a number of questions.

"What is involved in evaluating a program?" Luker (1981:89) referred to the six steps of evaluation listed by Suchman (1967) as: identification of goals to be evaluated, analysis of the problem with which the activity must cope, description and standardization of the activity, measurement of the degree of change which takes place, determination of whether the observed change is due to the activity or some other cause, and some indication of the durability of effects.

"How is program evaluation accomplished?" Keeler (1972) suggested that program evaluation required a background of sound program planning. She envisioned planning as as circular motion with evaluation as a part. She based evaluation on the presently established purposes, objectives, activities and resources of the program.

Block (1975), Zettinig and Lang (1981), Meleis and Benner (1975), and Luker (1981) all recognized the need for evaluation to be concerned with more than just objectives. This move to a more encompassing view

of evaluation was similar to that which happened in educational evaluation. Evaluation models of Scriven, Stake, Stufflebeam and Provus recognized many more dimensions than did the earlier objective-focused model of Tyler. Luker (1981) reviewed the work of Derryberry, Lindeman and Donabedian when she discussed evaluation of nursing care. Her discussion was also applicable to evaluation of nursing education programs. Luker (1981) referred to Derryberry's evaluation of nursing care in terms of the changing stage of the patient, or outcome evaluation. This same concept could be applied to examine the changing state of the nursing student. However, Luker (1981:91) pointed out, "Care should be evaluated using means other than volume and intensity of service." She made reference to Lindeman's three major components of the nursing care system: the setting in which the care is rendered, the actual care given, and the patient outcome. Again, reference could be made to nursing programs by substituting "student treatment" for "care", and "student" for "patient". Luker (1981) concluded her review of nursing care evaluation by discussing Donabedian's three approaches to evaluation, namely: structure, process and outcome. Structure evaluation involved the study of factors in the organizational system. Process evaluation involved the appraisal of care given to patients. Outcome evaluation referred to the end result of the care. Luker (1981:92) summarized "It is incumbent upon the evaluator to decide whether to use structure, process or outcome goals or a combination of two or more."

Block (1975:262) also examined Donabedian's framework for evaluating patient care when she discussed issues in research and quality assurance. She made a number of recommendations:

1. Nurses, physicians, and other health care providers should develop patient care outcome criteria along with methods for measuring such outcomes.

2. Nursing should continue to develop its set of nursing care-specific outcome criteria on the basis of nursing problems.

3. Nursing should establish a national clearinghouse for nursing practice evaluation.

4. The clearinghouse should establish a list of competent consultants.

5. Quality control programs should work toward process-outcome evaluation.

These statements referred to nursing care but are equally applicable to nursing education programs.

Zettinig and Lang (1981) examined evaluation of education programs, specifically course evaluation. The framework used was also that of Donabedian with the triple focus: structure, process and outcome. They concluded that there was a need to develop more evaluation instruments based on a structure-process-outcome model. Process evaluation could be undertaken during the course of a program and served as a basis for prompt and necessary changes. Product evaluation, or the measurement of outcomes, measured the end result of an experiment or project.

Table 2.1 differentiates the conditions under which process and product evaluation would be recommended.

After extensively reviewing the above literature, the investigator was aware of the advantages of a structure-process-outcome framework for evaluation of educational activities. However, this

Table 2.1

Conditions under which to use process or product evaluation

Process evaluation is recommended when:	Product evaluation is recommended when:
- a short-term project is being evaluated.	- it is essential to compare outcomes of different programs.
- the evaluation is conducted during the developmental stages of any innovation.	- the program is sufficiently developed to warrant testing.
- qualitative and quantitative information is needed to guide decision making in implementing an ongoing project.	- the variables are well delineated and it is feasible to control for extraneous variables and unforseen changes while the data evaluation is being conducted.
- post-evaluation recommended changes could be further implemented and tested in an ongoing process.	- the question of whether or not a program should be continued is being considered.
- unobtrusive measures are warranted for faculty and student acceptance	
- students' desires to select certain faculty and educators' desires to select a teaching-learning modality that is amenable to continuous changes are given priority over fixed teacher and student assignments.	

Source: Meleis and Benner, 1975:303.

study did not involve such a framework for a number of reasons. Such studies frequently required a team approach, an extensive period of time for completion and significant resources. This investigator had none of the above. The study investigated whether a group of graduates reported an improvement in their performance of nursing activities after completing a post-R.N. baccalaureate program. A follow-up study which focused on outcomes seemed to be an appropriate method of investigation. The focus of the study was on the products (graduates) of a program. Process evaluation would more appropriately have examined students while in the program. The reality of the timing of this study was not conducive to a process evaluation. The process framework might be better suited to a follow-through rather than a follow-up study.

Having stated why the investigator chose to do a follow-up study, this review of literature will now focus on a number of nursing education program evaluation studies. Role of the evaluator, procedures utilized, measurement instruments, and findings of the studies will be presented.

Evaluation Studies of Nursing Education Programs

Role of the Evaluator

Scriven (1967) when discussing the distinction between formative and summative evaluation suggested implications for the personnel involved in the evaluation. The formative evaluator may need to work closely with the curriculum committee. The summative evaluator may

need to be free of conflict of interest for his evaluation to have integrity. Stake (1967) saw the specialist in evaluation as a "describer," one who described, aptitudes and environments, and accomplishments. He was the one who made judgments. In Worthen and Sanders (1973:325), Gooler and Grotelueschen suggested that an evaluator should make decisions based on the results of his evaluation study and should bring his final report, including judgments and recommendations, to the administrator. These authors recognized the importance of the evaluator making judgments and presenting recommendations to the administrative body.

The authors of evaluation literature, however, were also cognizant of the need for ethical behaviour and some form of Standards of Practice. Sheinfeld and Lord (1981) found in their study of the ethics of evaluation researchers that the protection of human rights were critical evaluator issues, regardless of the evaluator's role in the organization. Concerns such as these were recognized in the attempt by the Joint Committee to develop Standards for Educational Evaluation (1981).

In the present study the investigator assumed a unique role. She was a student and had an extensive background in nursing, teaching of nursing students at all levels, curriculum content development, directing an innovative curriculum development project, and advanced studies in curriculum, evaluation, and research. She had no previous connection with the program being studied. For these reasons, the investigator assumed the role of an external evaluator. She stated conclusions, implications and recommendations based on the findings of

the study. She was aware of the ethical considerations during the study. She communicated the findings to those who administrated the program, but she was in no position to exert influence regarding actions taken on the recommendations.

Procedures Utilized

Linn (1975) conducted a longitudinal study on expectations vs. realization in the nurse practitioner role. All eleven students who took part in the program were studied. They were asked to evaluate their jobs before, during, and after their training and preceptorship. No other comparison group was used.

This population was small. The credibility of the results was reinforced by the fact that the study was longitudinal. Treece and Treece (1973:84) listed the advantages of the longitudinal approach:

- the datum is more accurate since the subject does not have to reply by recall.
- each individual is followed separately, and it is possible to observe and interpret any variations near the time they occur.
- the observer will be able to make more objective observations about a given event than the subject who simply makes a subjective recall.
- the research can pursue in depth a particular point of interest
- early apparent trends can be investigated in depth at forthcoming data collection points.

Generalizations in the Linn study were limited by the small numbers and the geographical limitation. The present study used a different

approach. A larger total population of graduates and a comparison group was studied. A longitudinal study was not carried out due in part to the limited time frame of the study, and to the limited financial resources.

Goldstein (1980) compared characteristics of associate degree and baccalaureate nursing students. Ten baccalaureate and ten associate degree nursing programs, which were accredited by the NLN in the State of Illinois, were contacted for permission to administer instruments to their students. Five from each type of program cooperated. The participants totalled 204 baccalaureate students and 159 associate degree students, with participation rates in the programs ranging from a low of 14% to a high of over 35%. Goldstein's study was more rigorous than Linn's because of the use of larger numbers, a larger geographical spread, and a comparison group. One questions the 50% cooperation rate of the contacted programs, and the low student particiption rate. The sampling procedure in Goldstein's study was not used by this investigator, as there was only one class of graduates from the program being studied.

Hayter (1978, 1971, 1963) conducted three follow-up studies on graduates of baccalaureate and Master's nursing programs and explained (1978:381):

> Recent graduates are in a singularly appropriate position to evaluate their educational program. Somewhat removed from the educational setting, faced with meeting new job expectations, they can comment realistically about the adequacy of their education. ...a follow-up study can provide data about the nature of the graduates' work and other post-graduation professional activities...and whether those responsibilities are the ones for which their education was intended to prepare them.

Hayter's three studies utilized the same instrument, and compared graduate responses with employers' responses. In each study graduates from the program being studied constituted the population. The response rate for graduates varied from a low of 86% to a high of 96%. The population of graduates varied in size from 72 to 182. The response rate for employers varied from 90.5% to 94%. The population of employers varied from 67 to 168. Hayter employed stringent data collection techniques which resulted in these high response rates. She mailed two questionnaires to the graduates - one for the graduate and one for her employer, a letter to each and consent forms for both respondents, a release of information form for the graduate and employer, and a self-addressed, stamped envelope for return of questionnaires. In one study, preliminary contact was made with parents of graduates to confirm addresses. Follow-up letters were mailed to non-respondents after three weeks. Bergman (1973) utilized Hayter's study framework to evaluate the Tel-Aviv University post-basic baccalaureate nursing program. The response rate was similar. Hayter's rigorous procedures produced high response rates. Generalizations were limited due to geography.

Hayter's procedures were useful in the present study. Graduates of the program formed one group while the comparison group consisted of nurses awaiting entry to the post-R.N. program. This choice of a comparison group was partially based on a limitation in two of Hayter's studies. Hayter reported a number of employer "no responses" pertaining to graduates' preparation for specific functions. Hayter (1978:383) explained this, "While the graduates could say whether they

felt adequately prepared for a function they had not been asked to carry out since graduation, employers could not be expected to do likewise." It is interesting to note that Bergman (1973), while generally following Hayter's model, also did not use employers as a comparison group but rather a retrospective self-report of students' performance.

Schwirian (1978b) described the development of the Six-Dimension Scale of Nursing Performance. The sample of graduates were selected using a two-stage approach. In the first stage, 1,440 basic schools of nursing in the United States were stratified according to school type, geographic region, and source of financial support. They were then placed in a 24 cell matrix, and each cell was randomly sampled to give a 10% sample of schools. The director of each school was asked to participate in the study. Those who agreed were sent a questionnaire to furnish information about graduates. The final school sample size was 151. In the second stage, the directors of the schools provided information which resulted in three groups of graduates who were designated as: most promising, promising, and non-selected. Nine hundred and fourteen graduates (30.4 percent) formed the final sample by responding to questionnaires.

Schwirian also used supervisors' responses in her study. The graduates were requested to furnish the name of the person most able to evaluate them and the name of the director of nursing of her place of employment. Seven hundred and twenty-two graduates furnished names. Questionnaires were sent to the directors of nursing requesting they pass the questionnaire to the designated immediate supervisor. Five

hundred and eighty-seven supervisors (89 percent) returned questionnaires, forming the final supervisor sample.

Schwirian's mammoth undertaking was admirable and appropriate when the population was large. A study of this magnitude requires a team approach. Stringent sampling techniques must be utilized and the ultimate sample size will be large. In Schwirian's study, supervisors formed the comparison group.

The present study utilized the total population of program graduates and a random sample of nurses awaiting entry to the post-R.N. program.

Measuring Instruments

Brian (1980) surveyed graduates of six programs included in the National Second Step project. Brian's instrument obtained the kind of information about graduates in which the present study was interested. The survey scales focused on a description of the graduates' current activities and expectations for the future, their interests and participation in professional activities related to nursing, and a retrospective evaluation of the program. Reliabilities of the scales were provided. Detailed information on the development of the scale was not included.

Hayter (1971) designed a rating scale to measure graduates' and employers' opinions about graduates' preparation for specific nursing behaviors. This instrument was based on the philosophy and objectives of the program from which the graduates had come. Reliabilities and validities were not reported. The instrument was appropriate to the

reported study as it was designed specifically for the program but could only be used in another program if the objectives were similar. The present study was also interested in using an instrument which corresponded to the philosophy and objectives of the program from which the graduates being studied had graduated.

Nelson (1978) designed the Nurse Competency Inventory which consisted of 35 competency statements categorized into technical, communicative, and administrative skills. These statements were the result of investigator experience, review of the literature, and review by representatives of the nine schools taking part in the study. The nine schools represented the three types of nursing programs: baccalaureate, associate degree, and diploma. The final list of competency statements included only those functions common to all nine schools. Reliabilities and validities were not reported. The instrument might have been appropriate for use by this investigator. One advantage was the generalizability of the instrument as it was approved for use by nine schools of nursing. However, it was somewhat limited in the competency areas it covered.

Schwirian (1978b) developed the Six-Dimension Scale of Nursing Performance (Six-D Scale). When discussing the uses of the scale, she explained that the scale was: applicable to nursing performance in a variety of practice settings; consistent with nursing process model of good nursing practice; applicable to the practice of nurses who had completed their basic nursing education within the past one or two years; usable not only by nurses to appraise their own performance, but also by their immediate superiors; composed of items stated in

terms of observable nurse behaviors; and composed of items that could be read and interpreted consistently without additional explanation or expansion.

Schwirian (1978b) also discussed how the scale was developed. An extensive literature review was undertaken to examine constructs, concepts and measuring instruments. Other investigators and educators were requested to share their materials and instruments. Representatives of the diploma and degree program provided, for examination, operational definitions of "effective nursing performance" and a "successful nurse." Collegues, consultants, and pilot respondents reviewed the scale and provided recommendations for improvement. As a result of this extensive developmental phase, the scale was perceived not to be biased either for or against any of the three types of nursing program graduates.

The final result of the arduous undertaking was a 52-item scale which incorporated six subscales of the following behaviors: interpersonal relations/communications, leadership, critical care, teaching/collaboration, planning/evaluation, and professional development. The reported reliabilities ranged from a low of .84 for the leadership subscale to .98 for the professional development subscale. Factor analysis was carried out to test for construct validity (see Chapter III).

This instrument had potential use for this investigator. It was developed to be useful in a variety of situations. It could be used on various types of nursing students. The subscales covered the

dimensions of nursing performance that this investigator wished to study.

Research on Nursing Education Programs and Nursing Performance

Few studies have been carried out to investigate the nursing performance of post-R.N. graduates before entering the program and after graduating from the program.

This investigator reviewed studies on nursing programs, nursing performance, and comparison of student characteristics in an attempt to find trends indicating that further education did enhance the perceived quality of the performance of activities in the various dimensions of nursing, i.e. leadership, teaching, planning, communication and professional development. Reports of studies by Allen (1969); Hayter (1963, 1971, 1978); Bergman (1973); Keller (1972); Linn (1975); Williams (1975); Williams, Block and Blair (1978); Meleis and Benner (1975); Zettinig and Lang (1981); Corwin and Taves (1962); Nelson (1978); Schwirian (1978); and Goldstein (1980) indicated that generally there was a relationship between education and performance.

In 1979, Dennis and Janken published a paper reviewing the practice patterns of nurses educated in diploma, baccalaureate, and associate degree programs. The key findings (1979:37) of that extensive review, comparing the diploma and baccalaureate graduate, were reported as follows:

> Baccalaureate nurses tend to out perform diploma and associate degree nurses in activities requiring leadership, psychosocial patient supports and problem-solving. After the initial period of orientation

> to practice, the clinical skills of baccalaureate nurses equal those of the technically trained nurses. In terms of coordinative ability, innovation, initiative, breadth of knowledge, professional role orientation, follow-up of activities, quantity and quality of care produced, ability and skill in applying knowledge to problems, and critical thinking, there is some evidence that baccalaureate nurses are superior to diploma and associate degree nurses. Because of the transition from an academic to a clinical setting initially having less nursing responsibilities than the baccalaureate graduate expects, the initial job satisfaction is lower than that of the diploma and associate degree graduates, and lower than that of the baccalaureate nurse after the third year of nursing.

Schwirian (1979a) reported that graduates of nursing programs rated their own behaviours highest on the interpersonal relationship/communication and leadership subscales, and lowest on the teaching/collaboration scale. When types of graduate performance were compared, she found that diploma graduates rated themselves higher than baccalaureate graduates in leadership, critical care, and IPR/communication. Baccalaureate graduates rated themselves higher than diploma graduates in teaching/collaboration and planning.

The National Second Step Project, Sonoma State University, California, published reports of their annual conference proceedings in 1980 and 1981. The extensive reports provided a wealth of information on the research findings of post-licensure upper-division baccalaureate programs designed specifically for registered nurses. The research covered a broad range of concerns: leadership in the programs, administration of the programs, implementation of innovative programs such as individualized learning, integration of the programs into liberal arts colleges, and characteristics of students among others.

Some of the methods of research included quantitative and qualititative analysis, process and product models, longitudinal and follow-up designs.

One of the studies reported was that of Brian (1980). She reported on an outcomes study based on a longitudinal design of the post-graduation activities of the students of six NSSP programs, (1980:54):

> We know that graduates are carrying more responsibility, earning more money and, generally feel that their post-graduation positions have improved over the ones they had before entering their second step program. We also know that, at least as far as job titles and work settings are concerned, these graduates are very similar to all employed baccalaureate nurses in the U.S. with one notable exception. Far more graduates in the NSSP sample are working as nurse practitioners than in the nursing population at large.
>
> Graduates have a significantly higher level of interest in various professional activities than do entering students. These Second Step programs appear to be accomplishing an important goal in evaluating the professional orientation of those RNs who come to them prepared as technical nurses.
>
> Superiors tend to rate the graduates highly in comparison to other baccalaureate nurses, and the graduates themselves credit the program with having had a strong and positive impact on many areas of their professional function.

Brian (1980:54) concluded by raising some questions for further research.

> Are they interpreting their jobs differently? Are they able to function more independently and with more assurance? Are they more able to deal with problems that arise? Are there differences that the graduates perceive in the settings themselves?

The present study will attempt to answer some of those questions.

Summary

In this review of the literature definitions of evaluation and arguments regarding evaluation and research were discussed. The methodologies of educational evaluation which have become widely accepted and utilized were summarized. Current trends in nursing evaluation were examined. Finally, the current state of evaluation of nursing education programs and performance was examined, focusing on the role of the evaluator, procedures utilized, measuring instruments, and findings of research studies.

CHAPTER III

DESIGN, APPROACH AND PROCEDURES

In this chapter, the study design, a theoretical approach to follow-up evaluation, and the procedures utilized are described. The design of the study is described in the first section. In the second section, an approach to follow-up evaluation is outlined, focusing on the factors to be considered and a technique of blocking the variables which are to be examined. The development of the instrument is described in the third section. The sampling and data collection procedures are outlined in the fourth and fifth sections. Finally, the procedures used to analyze the data are presented.

Design of the Study

The purpose of this study was to collect and analyze information to answer research questions about two groups of registered nurses: those awaiting entry to a Post-R.N. baccalaureate program and those who had graduated from the program.

The study design was based on the pre-experimental design, static-group comparison, described by Campbell and Stanley (1963:12). Figure 3.1 describes the design. The measurements (O_1) of a group that has experienced an event (X) are compared with the measurements (O_2) of a group that has not, for the purpose of establishing the

effect of the event (X). The dashed lines (--) indicate that the comparison groups were not equated by random assignment.

$$\begin{array}{c} X \\ - - - \\ \end{array} \quad \begin{array}{c} O_1 \\ O_2 \end{array}$$

Figure 3.1

The Static-Group Comparison

Source: Campbell and Stanley (1963:12)

This design, as do all others, exhibits strengths and weaknesses. Campbell and Stanley (1963) described the design by focusing on sources of invalidity of which the investigator should be aware. The factors of: history, testing, instrumentation and regression are controlled in this type of design. Maturation may be a source of concern. Selection, mortality, and interaction of selection and maturation may affect internal validity. Interactions of selection and the event may affect external validity. This investigator could not ensure that both groups of nurses would have been equivalent if the one group had not completed the baccalaureate program. Therefore, it became necessary through selection to attempt to obtain as equivalent a group as possible. Worthen and Sanders (1973:51) concurred with this idea suggesting "In a follow-up study, it is necessary to obtain data on a control group equated at least crudely to the experimental cases on the obvious demographic variables." The Special Student group was chosen to represent a pre-entry group. Experimental mortality may be a

confounding variable in this design. Some attempt was made to ascertain if non-respondents differed from respondents by examining student profiles.

Limited information was available on the 1980-81 second year Post-R.N. class. Percentage distributions of these students by sex (98.6% female), age (33.3% between 25 and 29 years) and G.P.A. (64.7% between 7.1 and 9) was compared with percentage distributions of the responding graduates by sex (100% female), age (39% between 25 and 29 years) and G.P.A. (65% between 7.0 and 8.9). Based on this limited information, it was ascertained that the non-respondents did not differ substantially from the respondents on these variables.

A Theoretical Approach for Follow-up Evaluation of a Post-R.N. Nursing Program

The incentive for this study was generated by asking a general question: "Does the acquisition of a baccalaureate degree improve the quality of nursing performance?" A preliminary search of the literature and interviews with significant members of the nursing community revealed that conducting a follow-up evaluation of Post-R.N. baccalaureate program graduates might be an appropriate method to gain information which might provide some answers to the question. Cronbach (1963) indicated a follow-up study was useful to observe ultimate educational contributions and to appraise effects of the program as a whole. Some type of framework was necessary to plan and conduct the follow-up study.

The Reform of Program Evaluation

Prior to developing the framework for this follow-up evaluation, models of program evaluation were reviewed. As discussed in Chapter II, numerous models were developed during the decade of the sixties by writers cited by Worthen and Sanders (1973) such as, Scriven, Stake, Stufflebeam, Alkin and Provus. Worthen and Sanders (1973) when discussing these models, suggested that evaluators incorporate the best features of the various approaches resulting in an eclectic evaluation plan. This approach would produce a custom-designed evaluation rather than a standard cookbook recipe. Cronbach and Associates (1980) concurred with this idea and went even further toward reform when they discussed the state of program evaluation in the decade of the eighties. They tended to discard formal models in favor of simple schematic diagrams suggesting that formal detailed models may lead to confusion. The schematic approach accomplished a number of purposes for the evaluator (Cronbach and Associates: 1980); it: 1) illustrated a habit of thought appropriate to evaluation planning, 2) identified the scope of the evaluation, 3) identified what a single evaluation could realistically accomplish and 4) identified what was to be observed.

An Approach for Planning Follow-up Evaluation

Utilizing these concepts an approach was developed that identified the factors to be considered when planning and conducting an evaluation from the perspective of the evaluator (See Figure 3.2). These factors resembled what Stake referred to as the rationale in his

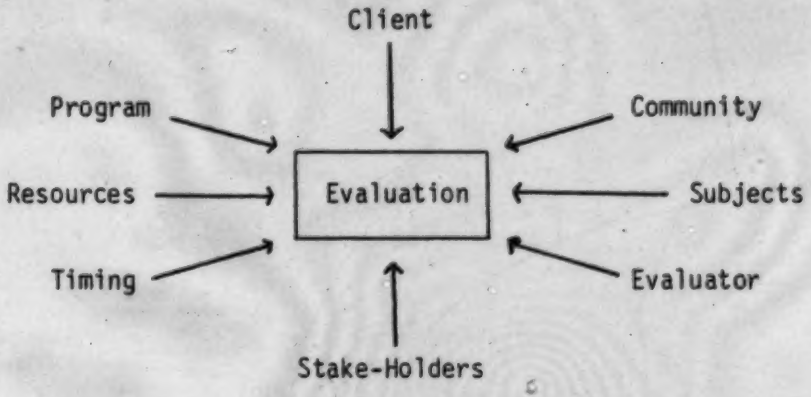

Figure 3.2

Factors to be Considered When Planning and Conducting the Evaluation

Countenance Model of Evaluation, while Stufflebeam referred to them as context in his CIPP (context, input, product, and process) Model of Evaluation, and Provus referred to them as input in his Discrepancy Model of Evaluation.

The factors to be considered when planning this study were: the client, the community, the subjects, the program, the resources, the timing of the study, the stake-holders, and the evaluator. Each factor was examined by posing questions which needed to be asked about each factor before conducting the evaluation. The evaluator then recorded the known information about each question.

The Client

1. Who is the client?
2. What are the client's needs?
3. What are the client's expectations?
4. What characteristics of the client are pertinent to this evaluation?
5. What is the client's understanding of evaluation?
6. Is the client committed to this evaluation?
7. What are the ethical considerations when working with this client?

The client in this study was a university Faculty of Nursing interested in obtaining information about the first graduates from a program which had undergone a curriculum revision. Information gathered would be utilized in guiding curriculum revision, program planning, and policy formation. The majority of persons in the client

group had extensive experience in specialized areas of nursing and possessed a Masters degree or Ph.D. in nursing or related disciplines. Some members had advanced education and experience in curriculum development and evaluation methodologies. This group had previously conducted some follow-up evaluations, however, at this time they had neither the time nor available manpower to conduct this study. They expressed committment to the study by providing both service and financial support. In addition, members of the client group participated in providing curriculum materials to the evaluator, discussing the study and possible variables, and validating various stages of the instrument development.

Ethical considerations revolved around confidentiality, access to information, release of findings and possible implications of the study findings. Confidentiality was assured to the client members who discussed the study with the evaluator and who validated the instrument. Names were not used, instruments were not coded and the raw data were seen only by the evaluator. Access to information from the client occurred through an appointed resource person from among the client membership. Release of findings beyond the boundaries of the original agreement between the evaluator, client, and University Department supervising the study would occur only with approval of the client. Also considered were implications both directly and indirectly which the findings of the study may have. Directly, the findings could be used for curriculum revision, and program planning. Indirectly, the findings could reflect credibility of the program/faculty, and could

affect student recruitment, program funding and future policies regarding this and similar programs.

The Community

1. Who are the members of the community?
2. What are the characteristics of the community?
3. What are the needs of the community?
4. What are the expectations of the community?

The members of the community significant to this study were the health-concerned public. This public was comprised of everyone who was affected by health care such as potential patients and families, current patients and families, all levels and categories of care givers, and potential students. One responsibility of the profession of nursing is to ensure safe competent health care for the consumer. The consumer expects that this standard of health care be obtained at a minimum cost. These expectations extend to the programs which educate the practitioners.

The Subjects

1. Who are the subjects?
2. What are the characteristics of the subjects?
3. What are the expectations of the subjects?
4. What are the ethical considerations when working with these subjects?
5. Are the subjects committed to this evaluation?

6. What are the biasing factors of the subjects which may influence this study?

The subjects were registered nurses who had completed the Post-R.N. program and graduated in 1981. A sketchy profile indicated approximately three-quarters of these graduates were thirty-six years old or younger, that ninety-eight percent were female, that eighty-percent had a senior matriculation average of between sixty-six percent and eighty percent and that sixty-six percent had a G.P.A. of 7.1 to 9.0.

These graduates would have expected the program they graduated from to be a credible program, providing them with the advanced knowledge and skills which position papers, reports, and leaders in nursing indicated would be provided by a baccalaureate degree. They also would expect that any study done would ensure their anonymity and confidentiality. It was difficult to predict if the subjects would be committed to the study. A good response rate was anticipated based on two opposing views which the subjects might hold. Either the program had met their expectations and they wished to share this information, or the program had not met their expectations and they wished to express their discontent. The evaluator was aware of some current factors which might have influenced the study. Controversy did surround the suggestion of a baccalaureate degree as the minimum preparation for entry to practice. In addition, the climate surrounding nursing in the study environment was unstable due to an impending strike. The two issues, particularly the latter, could affect the study.

The Program

1. What type of program is being evaluated?
2. What stage of the program is being evaluated?
3. Does the program have a curricular model? If so, what is it?
4. What are the characteristics of the graduate/expected outcomes/objectives of the program?
5. What is it about the program which is to be examined?

The program under study was a two-year Post-R.N. baccalaureate program offered since 1970 at a University in Western Canada. The program curriculum had recently been revised and was based on the Orem Self-Care Nursing Model. Statements about the characteristics of the graduate, expected outcomes and objectives were available. The study focused on the first graduates from the revised program. The study was not an exhaustive follow-up on these graduates, but rather an examination of selected variables: demographic characteristics, educational characteristics, nurse career behavior characteristics, and the quality of nursing performance.

The Resources

1. What resources are available to the evaluator? i.e. time, money, manpower, expertise, equipment/supplies.
2. What resources are required?
3. Can additional resources be obtained?

The evaluator was the principle investigator and had ten months to conduct the study. Resource persons were available in the form of faculty advisors/experts, computer analysts, and administrative support from the client. Equipment/supplies which were available included libraries and computing services. The resources required in addition to the ones available were additional services and funds. The client was most cooperative in providing additional resources. Typing, printing and funding was provided for specific phases of the study i.e., proposal, approval, instrument development, validation, data collection, data analysis and summary. However, additional funds would have to be sought to cover: office supplies, typing, revision, printing, binding, and distribution of the final report.

The Time of the Study

1. What is the "state of the art" which may influence the study?
2. Are there any current events that may influence the study?

One issue was recognized as having a potential influence on the study. A nurses' strike, the main issue being compulsory registration, was a very real possibility as the study was initiated. At the time of questionnaire mail-out, the nurses were in fact on the picket-lines.

Another factor concerning timing of the study revolved around selection of a comparison group for the study. The academic year had begun before the study was initiated. Therefore, the ideal pre-treatment group could not be utilized. Another group would have to be selected.

The Stake-holders

1. Who, in addition to the client, is interested in the findings of this study?
2. Who, in addition to the client, may be influenced, positively or negatively, by the findings of this study?

Two groups of stake-holders were interested in and might be influenced by the study. The first group included those stake-holders who might be directly interested and affected. This group could include the Department of Educational Administration, the Alberta Association of Registered Nurses, the Canadian Nurses Association, and the Department of Advanced Education and Manpower. The second group included those stake-holders who might be indirectly interested and affected. This group could include registered nurses, students in the program, potential students, and the research community.

The Evaluator

1. Who is the evaluator?
2. Is this person qualified for the job i.e., knowledge of the area being evaluated, knowledge of evaluation, knowledge of research, previous experience in conducting such studies?
3. Does this person have credibility in the field?
4. Is the evaluator functioning in an internal or external capacity?
5. Will the evaluator work alone or as part of a team?
6. Is the evaluator able to be autonomous or will the evaluator be influenced/biased?

The evaluator was a registered nurse who possessed a B.Sc.N. and was completing requirements for a Master's degree in Educational Administraion. The major focus of that program had been on program evaluation. The evaluator had numerous and varied experience in teaching of nursing, development and revision of curriculum, assisting with research projects, and directing a program development project. The evaluator held numerous positions in her professional association. It was felt she was able to offer the client some assurance of credibility. In addition she was working with two faculty advisors. The evaluator was functioning as an external evaluator as she had no previous contact with the client. The evaluator was autonomous and had indications from the client that this would continue.

In summary, the evaluator identified and analysed the factors to be considered when planning and conducting the study. This was done to fulfill one of the purposes of such a plan as identified by Cronbach and Associates (1980), that being to illustrate a habit of thought appropriate to evaluation planning.

Identification of Observations to be Made

The second part of the approach was developed to fulfill the other purposes of such a plan as identified by Cronbach (1981): to identify the scope of the evaluation, to identify what a single evaluation can realistically accomplish, and to identify what is to be observed.

The client identified a number of variables on which data could be collected. Possible relationships to be examined were also

discussed. It then became necessary to identify the scope of the evaluation and what this single evaluation could realistically accomplish. A variable-blocking technique discussed by Blalock (1966) and presented by Schwirian (1981) was examined for possible application to this study. Schwirian (1981) suggested the methodologies of factor mapping or cannonical correlation or path analysis be used with this type of technique. Although these procedures were not used in this study, the fundamental idea of blocking the variables proved useful in identifying the relationship to be observed, thereby defining the scope of the study and what could realistically be accomplished by this evaluation.

The variables as blocked appear in Figure 3.3. The blocks represent the five major categories of information to be gathered and analyzed in this study: demographic characteristics, academic achievement, basic education, post-R.N. education, and nurse career behavior. Due to the limited scope of this study, other categories of information which may be useful in a more exhaustive follow-up study, such as employment characteristics, personal characteristics, and nursing school characteristics, were not included.

Relationships to be Examined

Schwirian (1981:247) described four types of relationships to be examined using the blocking-technique: 1. Relationships between "meta-groups" or related variables (box_x-to-box_y), 2. Relationships among grouped variables (within-box), 3. Relationships between elements of one group of variables and elements of another group of

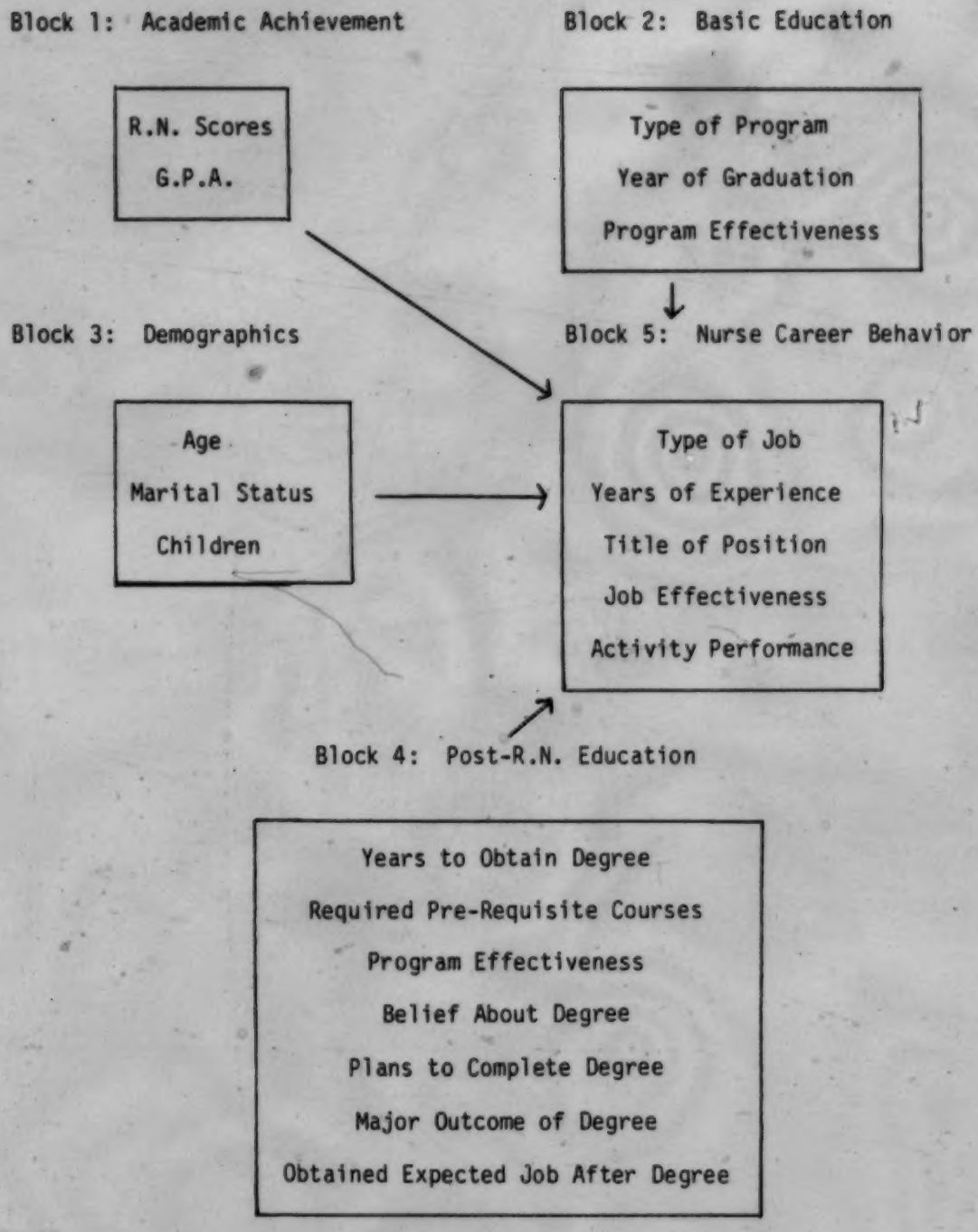

Figure 3.3

Variables to be Observed

variables (box_x $element_i$-box_y $element_j$), and 4. Relationships between a "meta-group" or related variables and elements of another variable group (box_x-to-box_y $element_j$). Similar relationships would be examined in this study.

Box-to-Box Observations. These kinds of observations would be: academic achievement (block 1) and nurse career behavior (block 5); basic education (block 2) and nurse career behaviors (block 5). (An example is shown in Figure 3.4).

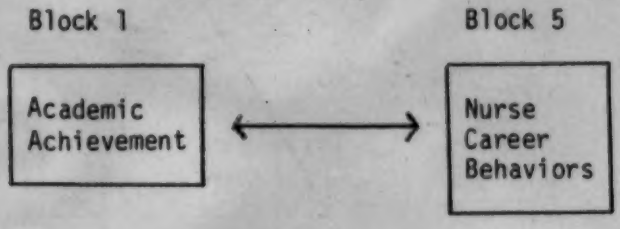

Figure 3.4

Box-to-Box Observations

Within-Box Observations. These kinds of observations would be: type of program graduated from and perceived effectiveness of the program (block 2); R.N. scores and G.P.A. (block 1); years of experience and activity performance (block 5). (Examples are shown in Figure 3.5).

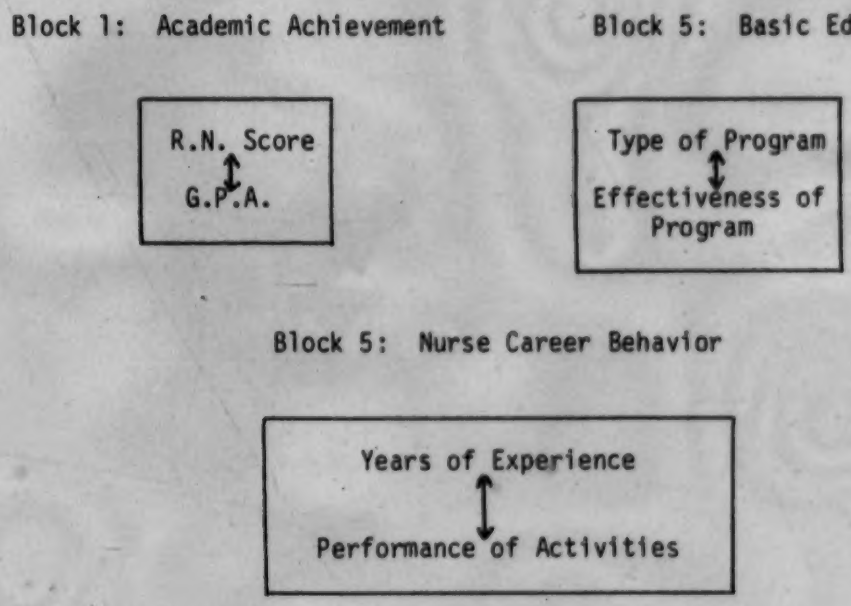

Figure 3.5

Within-Box Observations

Box_x $Element_i$-to-Box_y $Element_j$ Observations. These kinds of observations would be: G.P.A. (block 1) and title of position (block 5); type of basic program (block 2) and belief about a degree (block 4); and title of position and performance of nursing activities (An example is shown in Figure 3.6).

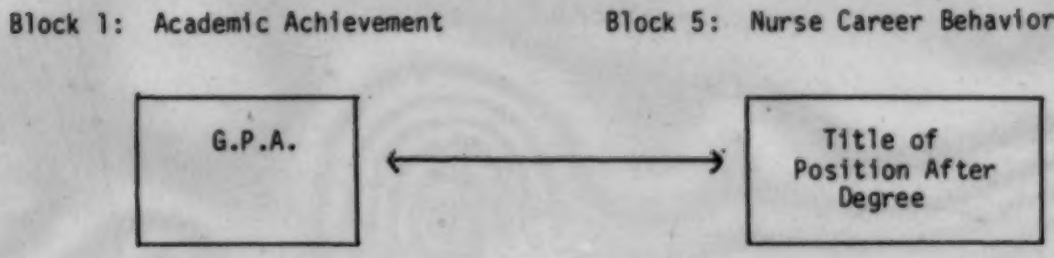

Figure 3.6

Box_x $Element_i$-to-Box_y $Element_j$ Observations

Box_x-to-Box_y $Element_j$ Observations. These kinds of observations would be: academic achievement (block 1) and activity performance (block 5); and demographic characteristics (block 3) and plans to complete a degree (block 4) (An example is shown in Figure 3.7).

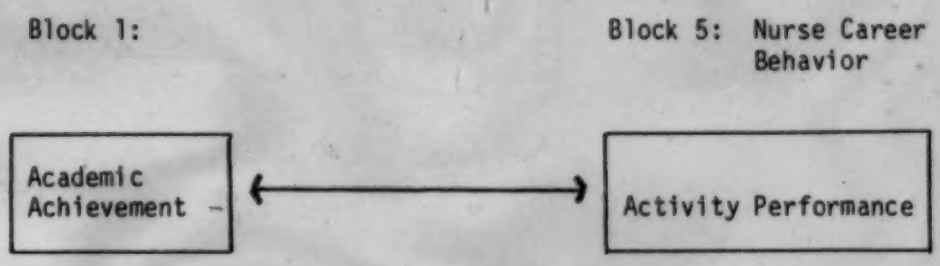

Figure 3.7

Box_x-to-Box_y $Element_j$ Observations

In summary, a technique of blocking the variables was described which could be utilized to observe the variable relationships. It became apparent that the majority of relationships observed in this

study were of the within-box (Figure 3.5) and box_x $element_i$-to-box_y $element_j$ (Figure 3.6)type.

Summary of Theoretical Approach

A theoretical approach for conducting a follow-up evaluation was developed. The framework consisted of two parts. The first part identified the factors to be considered when planning and conducting a follow-up evaluation. Specific to this study were the following factors: client, community, subjects, program, resources, timing, stake-holders, and the evaluator. Questions specific to the evaluation were asked about each factor. Information that was available to, and known by, the evaluator relating to each question was then recorded prior to conducting the study.

The second part of the framework identified the observations to be made in the study. These observations were organized by blocking the variables into the groups of: demographic characteristics, academic achievement, basic education, post-R.N. education, and nurse career behaviors. The variables were then examined by looking for box-to-box, within-box, box_x $element_i$-to-box_y $element_j$, and box_x-to-box_y $element_j$ relationships.

Such a plan accomplished a number of purposes for the evaluator. It illustrated a habit of thought appropriate to evaluation planning, identified the scope of the evaluation, identified what a single evaluation could realistically accomplish, and identified what was to be observed.

Development of the Instrument

Selected demographic, academic, basic education, post-R.N. education, and nurse career behavior characteristics of nurses awaiting entry to a Post-R.N. baccalaureate program and graduates of the program were described, resulting in profiles of both the pre-entry group and the graduates of the program. The graduates' reports of how well they performed selected nursing activities before entering the program and upon graduation were also examined.

Choice of the Instrument

Ninety-seven subjects were involved in the study and some of these, particularly the program graduates, were widely dispersed geographically. A mailed questionnaire was selected as an appropriate tool for data collection. McCallon and McCray (1975) identified the following advantages of mailed questionnaires: relatively low cost, the possibility of wide geographic coverage, provision for anonymity, uniformity in responses, and the opportunity for the respondent to contemplate her answers.

General Information Section

To identify the characteristics of nurses to be examined in this study, a number of activities were carried out. Selected members of the Faculty of Nursing were interviewed to determine what information about the nurses would be required. A number of instruments used in evaluation studies of nursing programs and follow-up studies of

graduates were reviewed. A Demographic Data Profile developed by W. Mills (1979) proved to be most useful, and some of these items were used as stated or modified for this instrument. Follow-up studies by Field (1978), Steed (1974) and Crawford, Harrison and Larson (1976) contained examples of the kind of information to be solicited in the the General Information section of the instrument.

Five Dimension Scale of Nursing Performance Section

The development of the Five Dimension Scale of Nursing Performance involved several activities. The nursing curriculum was reviewed to elicit statements describing the characteristics of graduates of the Post-R.N. baccalaureate program. The characteristics were stated as eight behavioral objectives. These broad objectives addressed some widely accepted conceptual areas of nursing: knowledge of concepts and theories, supportive technologies, nurse agency, leadership, professionalism, societal changes, research, and the role of the nurse. The curriculum was based on Orem's model of nursing and was organized in curriculum development units. The content of these units focused on the eight objectives and reflected the nursing dimensions of: leadership, teaching, planning, communications, and professionalism.

An extensive search was undertaken to determine if existing instruments could be used in this study. One such instrument which appeared to be useful was the Six-Dimensional Scale of Nursing Performance described by Schwirian (1978b) in the study, "Prediction of Successful Nursing Performance."

Schwirian's instrument included 52 statements of nursing activities which were derived from project work with 151 schools of nursing. The schools were representative of the associate degree, hospital diploma, and baccalaureate educational programs in nursing. Factor analysis was used to categorize the behaviors into six dimensions of activity related to: leadership, critical care, teaching/collaboration, planning/evaluation, interpersonal relationships/communication, and professional development. The measure of reliability computed for each of the six sub-scales was Cronbach's alpha and ranged from a low of .84 for the leadership subscale to a high of .98 for the professional development subscale. This instrument appeared to have utility for assessing nursing performance in this study.

Approval to use the scale was requested and gained from both Schwirian and The American Journal of Nursing Company, who held the copyright. Approval was granted on the condition that the instrument copyright be referenced (See Appendix B).

Validation of the Instrument

The instrument was distributed to members of the Nursing Faculty to determine whether the fifty-two activities were included in the curriculum. Sixty-seven percent of the faculty members responded to this request. Analysis of the faculty members' responses indicated that the critical care activities were not included in the curriculum of the Post-R.N. program and, consequently, this dimension was omitted. The proposed instrument for this study now consisted of two

parts: the General Information Section and the Five-Dimension Scale of Nursing Performance.

The basic instrument was further modified for the two subject groups: the comparison group of registered nurses enrolled as special students and the graduates of the Post-R.N. program. The special students were asked to respond to two questions about each activity statement, rating their responses on three- and four-point scales.

1. How <u>often</u> do you perform this activity in your current job?
2. How <u>well</u> do you perform this activity in your current job?

Graduates of the Post-R.N. program were asked to respond to four questions using the same three- and four-point rating scales.

1. How <u>often</u> did you perform this activity in your <u>previous</u> job?
2. How <u>often</u> do you perform this activity in your <u>current</u> job?
3. How <u>well</u> did you perform this activity <u>before</u> entering the program?
4. How <u>well</u> do you perform this activity <u>since</u> completing your degree?

Members of the Nursing Faculty again examined these two questionnaires for face and content validity, after which the final copy was made.

<u>The Final Instrument</u>

Two questionnaires were developed and are included in Appendix A. One questionnaire, color-coded green, was sent to the Special

Students. The other questionnaire, color-coded yellow was sent to the graduates. Each questionnaire contained the two sections: General Information and the Five Dimension Scale of Nursing Performance.

The General Information Section for both groups was comprised of the following blocks of variables: demographic, academic, basic education, post-R.N. education and nurse career behavior characteristics. The questionnaire for the graduates contained more variables within some blocks than did the questionnaire for the special students.

The Five Dimension Scale of Nursing Performance Section was comprised totally of one sub-section of the nurse career behavior block, that being activity performance. This section included forty-five activity statements which focused on the nursing dimensions of: leadership, teaching/collaboration, planning/evaluation, IPR/communication, and professional development (See Table 3.1). Both the special students and the graduates rated the frequency and quality of their performance of each of the activities.

Factor Analysis of the Five Dimensions

As described previously, Schwirian (1978b) had originally derived the six dimensions by subjecting the activity statements to factor analysis (oblique rotation) (See Table 3.2 in Appendix C).

The forty-five activity statements used in this study were subjected to factor analysis (oblique rotation) even though the usable returned questionnaires for a factor analysis were small in number (a combined total of 53) compared to the number of items (45).

Table 3.1

Five Dimensions of Nursing Performance

Activity Scale	Item Number	Activity
Leadership	3	Give praise and recognition for achievement to those under your direction.
	20	Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health personnel.
	22	Guide other health team members in planning for nursing care.
	23	Accept responsibility for the level of care provided by those under your direction.
	34	Remain open to the suggestions of those under your direction and use them when appropriate.
Teaching/ Collaboration	1	Teach a patient's family members about the patient's needs.
	4	Teach preventive health measures to patients and their families.
	5	Identify and use community resources in developing a plan of care for a patient and his family.
	11	Adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background, and sensory deprivations.
	13	Develop innovative methods and materials for teaching patients.
	24	Promote the use of interdisciplinary resource persons.
	25	Use teaching aids and resource materials in teaching patients and their families.
	26	Encourage the family to participate in the care of the patient.

Table 3.1 Continued

Activity Scale	Item Number	Activity
	27	Identify and use resources within your health care agency in developing a plan of care for a patient and his family.
	32	Communicate facts, ideas, and professional opinions in writing to patients and their families.
	33	Plan for the integration of patient needs with family needs.
Planning/ Evaluation	2	Coordinate the plan of nursing care with the medical plan of care.
	6	Identify and include in nursing care plans anticipated changes in a patient's condition.
	7	Evaluate results of nursing care.
	9	Develop a plan of nursing care for a patient.
	10	Initiate planning and evaluation of nursing care with others.
	12	Identify and include immediate patient needs in the plan of nursing care.
	31	Contribute to the plan of nursing care for the patient.
IPR/ Communica-tions	8	Promote the inclusion of the patient's decisions and desires concerning his care.
	14	Communicate a feeling of acceptance of each patient and a concern for the patient's welfare.
	15	Seek assistance when necessary.
	16	Help a patient communicate with others.
	17	Verbally communicate facts, ideas, and feeling to other health team members.

Table 3.1 Continued

Activity Scale	Item Number	Activity
	18	Promote the patient's right to privacy.
	19	Contribute to an atmosphere of mutual trust, acceptance and respect among other health team members.
	21	Explain nursing procedures to a patient prior to performing them.
	28	Use nursing procedures as opportunities for interaction with patients.
	29	Contribute to productive working relationships with other health team members.
	30	Help a patient meet his emotional needs.
	35	Use opportunities for patient teaching when they arise.
Professional Development	36	Use learning opportunities for ongoing personal and professional growth.
	37	Display self-direction.
	38	Accept responsibility for own actions.
	39	Assume new responsibilities within the limits of capabilities.
	40	Maintain high standards of self-performance.
	41	Demonstrate self-confidence.
	42	Display a generally positive attitude.
	43	Demonstrate knowledge of the legal boundaries.
	44	Demonstrate knowledge of the ethics of nursing.
	45	Accept and use constructive criticism.

Schwirian's results had been based on two groups of responses: 914 nurse graduates and 587 supervisors (Schwirian 1978b:348). (Table 3.3 in Appendix C shows the pattern of item loading using Schwirian's constructs and the respondents' reports in this study). (Table 3.4 in Appendix C shows the pattern of item loading forming possible new constructs based on the respondents' reports in this study). Based on this analysis of combined responses, and a small sample size the constructs as derived by Schwirian (1978b) were maintained for further data analysis in this study.

Reliability of the Five Dimension Scale of Nursing Performance

Table 3.5 shows that the measure of reliability, Cronbach's alpha, which was computed for each of the five activity scales in this study ranged from a low of .85 for the leadership sub-scale to a high of .95 for the teaching/collaboration subscale.

Table 3.5

Reliability of Activity Scales using Schwirian's constructs and combined responses of self-appraisals.
N = 53

Scale	Number of Items	Alpha
Leadership	5	0.848
Teaching/Collaboration	11	0.954
Planning/Evaluation	7	0.889
IPR/Communications	12	0.904
Professional Development	10	0.906

The Sample

This study examined two groups of nurses in one Western Province. The first group consisted of nurses enrolled for the calendar year 1981-82 as special students in the Nursing Faculty at a Western Canadian University. A student list was obtained from the Nursing Faculty. After determining that periodicity was not present, a systematic sampling method with a random start was utilized to select the subjects for this group.

The second group consisted of nurses who had graduated from the Post-R.N. baccalaureate program in 1981. The total population of this group was utilized in the study.

The Special Student group was admittedly not as homogeneous a pre-entry comparison as a group of nurses who had been accepted into the program and were in the first week of the program. However, due to the timing of the study, this Special Student group was considered to be the most acceptable and was readily available for comparisons. Further analysis in Chapter IV indicates the two groups exhibited similar general characteristics.

Data Collection

The data were collected from the subjects by use of a questionnaire. Self-addressed, stamped envelopes were enclosed with each questionnaire, along with instructions to return questionnaires within one week. Coding of questionnaires facilitated sending out

follow-up reminders. The design of the questionnaire facilitated direct transfer of responses to computer cards.

The questionnaire was mailed to 44 graduates of the Post-R.N. program and 55 Special Students on February 22, 1982. Two special student questionnaires were returned unopened, dropping the total N for the special students to 53. Table 3.6 indicates that 49% of the graduate and 57% of the special student questionnaires were returned by the first follow-up date, March 8, 1982. This first follow-up increased the return rate to 52% of the graduates and 68% of the special students by the second follow-up date, March 18, 1982. By the final date, March 31, 1982; 73% of the graduates and 75% of the special students had responded to the questionnaire.

Table 3.6

Distribution and Return of Questionnaires

Subjects	Questionnaires Distributed	Returned by: Follow-up 1		Follow-up 2		Cut-off	
	No.	N	%	N	%	N	%
Special Students	53	30	57	36	68	40	75
Graduates	44	20	49	23	52	32	73

Of the 44 graduate questionnaires mailed out, 32 were returned. One of these was discarded because the respondent was not employed. Therefore 31 questionnaires formed the final usable graduate sample.

Of the 53 special student questionnaires, mailed out, 40 were returned. Four of these were discarded; leaving a final usable sample of 36 special student questionnaires.

Treatment of the Data

The data obtained from the usable questionnaires were transferred to computer cards for processing using the Statistical Package for the Social Sciences (Nie. et al:1975).

The following statistical analyses were used in this study.

1. Factor analysis, oblique rotation, was used to verify Schwirian's constructs.
2. Cronbach's alpha was used to measure the reliability of the five nursing dimension scales.
3. Frequency and percentage distribution was used to describe the data about the characteristics and performance of the nursing activities of the respondents.
4. Pearson's correlation coefficient was used to describe the relationship between respondents' R.N. scores and the G.P.A.
5. t-tests and ANOVA were used to examine differences in self-reports of respondents about their performance of nursing activities.
6. t-tests and ANOVA were used to examine the relationships between selected characteristics and the respondents reported performance of nursing activities.
7. Step-wise multiple regression was used to determine which of the variables may be predictors of successful nursing performance.
8. Content analysis was used to analyze the open-ended responses.

Summary

The design of this study was that of a Static-Group Comparison. A theoretical approach was designed focusing on: 1. the factors to be considered when planning and conducting the study and 2. the blocking technique developed to examine the variables.

A questionnaire, based on one developed by Schwirian (1978b), was used to collect the data about the characteristics and reported performance of two groups of nurses. The questionnaire was tested for reliability and validity using Chronbach's alpha and factor analysis. Two groups of registered nurses were included in the study: those awaiting entry to a Post-R.N. program and those who had graduated from the program.

Data analysis included the use of frequency distributions, t-test, ANOVA, and step-wise multiple regression, Pearson's correlation coefficient and content analysis.

CHAPTER IV

ANALYSIS AND FINDINGS

In this chapter are presented the results of the data analysis and a discussion and summary of the findings with respect to the six problems.

The problems as stated were:

1. What are some selected demographic, academic, basic education, Post-R.N. education and nurse career behavior characteristics of nurses awaiting entry to the Post-R.N. Baccalaureate program and graduates of the program?

2. What are the self-reports of nurses awaiting entry to a Post-R.N. program and those who have graduated from the program of how frequently and how well they perform selected nursing activities?

3. Are there statistically significant differences in the self-reports of how well they perform selected nursing activities between nurses awaiting entry to a Post-R.N. program and graduates before they entered the program?

4. Are there statistically significant differences in the self-reports of how well they perform selected nursing activities between nurses awaiting entry to a Post-R.N. program and graduates after completing the program?

5. Are there statistically significant differences between the self-reports of how well the graduates of a Post-R.N. program performed selected nursing activities before entering the Post-R.N. program and how well they perform those activities after graduating from the program?

6. Are there statistically significant relationships between the selected characteristics and how well nurses awaiting entry to a Post-R.N. program report they perform selected nursing activities?

7. Are there statistically significant relationships between the selected characteristics and how well graduates of a Post-R.N. program report they perform selected nursing activities?

Problem 1

Problem 1 was stated as follows:

What are some selected demographic, academic, basic education, Post-R.N. education, and nurse career behavior characteristics of nurses awaiting entry to a Post-R.N. Baccalaureate program and graduates of the program?

Characteristics of Nurses Awaiting Entry to a Post-R.N. Program

In this section the results of the data analysis are reported and the findings about the characteristics of nurses awaiting entry to a Post-R.N. Baccalaureate program, hereafter referred to as the Special Students, are discussed.

Findings

Demographics

The frequency distribution of responses of nurses awaiting entry to a Post-R.N. program to questions about the characteristics of age, sex, marital status and number of children is shown in Table 4.1. The major findings were as follows:

1. The largest percentages of the special students were 25-29 years of age or 35-39 years of age.

Table 4.1

Special Students: Demographic Characteristics.
Frequency of responses about demographic characteristics.
N = 36

Demographic Characteristic	Frequency No.	Pct.
Age		
1. Under 25	2	6
2. 25-29	13	36
3. 30-34	6	17
4. 35-39	8	22
5. 40-44	5	14
6. 45-49	2	6
7. 50 and over	-	-
Sex		
1. Female	35	97
2. Male	1	3
Marital Status		
1. Single	7	19
2. Married	28	78
3. Other	1	3
Number of Children		
0. None	20	56
1. One	2	6
2. Two	9	25
3. Three	4	11
4. Four	1	3
5. Five or more	-	-

2. Most of the special students, 97%, were female.

3. The largest proportion, 78%, of the special students were married.

4. The larger proportion of the special students, 56%, had no children.

Academic

The frequency distribution of the scores of the special students on the R.N. exams is shown in Table 4.2. The major findings were as follows;

1. The nursing exams with the highest mean scores as reported by the special students were medical nursing and obstetrical nursing.

2. A large percentage of respondents, up to 19% for psychiatric nursing, either did not remember their scores or had come from a system utilizing a different scoring method.

3. The mean score, as reported by the special students, on all five exams fell between 500 and 550.

Basic Nursing Education

The frequency distribution of the special students responses to questions about the type of basic program, year of graduation, and effectiveness of the basic program for preparing them for the job they were presently doing is shown in Table 4.3. The major findings were as follows:

1. Most of the special students, 78%, had graduated from the hospital program. Respondents not included in the hospital or college program had graduated from a CEGEP or psychiatric nursing program.

2. Approximately two-thirds of the special students graduated from their basic program in 1970 or later.

Table 4.2

Special Students: Academic Characteristics.
Frequency of scores on R.N. Exams

R.N. Scores	Frequency No.	Pct.
Medical Nursing		
1. 350-399	1	3
2. 400-449	2	6
3. 450-499	5	14
4. 500-549	5	14
5. 550-599	5	14
6. 600-649	7	19
7. 650+	5	14
0. Other	6	17
N = 30, $\overline{X}$* = 4.73		
Surgical Nursing		
1. 350-399	-	-
2. 400-449	4	11
3. 450-499	6	17
4. 500-549	4	11
5. 550-599	7	19
6. 600-649	4	11
7. 650+	5	14
0. Other	6	17
N = 30, $\overline{X}$* = 4.53		
Nursing of Children		
1. 350-399	2	6
2. 400-449	3	8
3. 450-499	7	19
4. 500-549	3	8
5. 550-599	6	17
6. 600-649	5	14
7. 650+	4	11
0. Other	6	17
N = 30, $\overline{X}$* = 4.30		

Table 4.2 (Cont'd.)

R.N. Scores	Frequency No.	Pct.
Obstetric Nursing		
1. 350-399	-	-
2. 400-449	3	8
3. 450-499	5	14
4. 500-549	6	17
5. 550-599	7	19
6. 600-649	4	11
7. 650+	5	14
0. Other	6	17
N = 30, $\bar{X}$* = 4.63		
Psychiatric Nursing		
1. 350-399	1	3
2. 400-449	4	11
3. 450-499	6	17
4. 500-549	5	14
5. 550-599	5	14
6. 600-649	6	17
7. 650+	2	6
0. Other	7	19
N = 29, $\bar{X}$* = 4.21		

* This mean represents the mean of response choices i.e.: 1, 2, 3, 4, etc. not the actual score.

Table 4.3

Special Students: Basic Nursing Education Characteristics.
Frequency of responses about their basic nursing program.
N = 36

Characteristics of Basic Program	Frequency No.	Pct.
Type of Basic Program		
1. 3 year Hospital	28	78
2. 2 year College	6	17
3. Other	2	6
Year of Graduation from Basic Program		
1. Before 1960	4	11
2. 1960-1964	3	8
3. 1965-1969	6	17
4. 1970-1974	9	25
5. 1975-1979	14	39
Effective Basic Program		
1. Yes	22	61
2. No	13	36
0.	1	3

3. Sixty-one percent of the special students, reported their basic nursing program had effectively prepared them to function in the position they presently held, while thirty-six percent of the respondents did not believe their basic nursing program had effectively prepared them. Comments appear in Appendix D.

Post-R.N. Baccalaureate Education

The frequency distribution of the responses of the special students to questions about courses they were taking, plans to complete the degree, and beliefs about obtaining a degree are shown in Table 4.4. The major findings were as follows:

1. Approximately 50% of the special students were required to take pre-requisite courses.

2. Seventy-two percent of the special students took credit courses which were not pre-requisites.

3. Most of the special students, 81%, planned to complete the degree program in the next five years.

4. The special students expected that obtaining a degree would result in one of two major outcomes for them: 31% expected to obtain more challenging or satisfying work, and another 31% expected they would be able to change their field of work. The responses to "other" included those who saw the degree helping them obtain entrance to another faculty, and providing an opportunity for advancement in their present job. Only one person indicated the possibility of a "slightly" improved salary as a major outcome of obtaining the degree.

5. One-quarter of the special students believed a degree was not necessary. Another quarter felt it was required to function effectively in teaching, supervision or public health. Comments appear in Appendix D.

Table 4.4

Special Students: Post - R.N. Baccalaureate Education.
Frequency of responses about degree education.
N = 36

Post - R.N. Education	Frequency No.	Pct.
Required Pre-requisite Courses		
1. Yes	17	47
2. No	18	50
0.	1	3
Took Credit Non-pre-requisite Courses		
1. Yes	26	72
2. No	-	-
0.	10	28
Plan to Complete Degree		
1. Yes	29	81
2. No	6	17
0.	1	3
Major Outcome of Degree		
1. Improved working conditions	2	6
2. Improved salary	1	3
3. More challenging or satisfying work	11	31
4. Change field of work	11	31
5. Personal satisfaction	5	14
6. Other	2	6
0.	4	11
Belief about degree		
1. Do not need a degree	9	25
2. Government will require a degree	1	3
3. A.A.R.N. will require a degree	3	8
4. Nurses in teaching, supervision or public health need a degree	10	28
5. Do need a degree	6	17
6. Other	5	14
0.	2	6

Nurse Career Behavior

The frequency distribution of the responses of the special students to questions about their current employment and nursing experience is shown in Table 4.5. The major findings were as follows:

1. Most of the special students were employed.
2. Three-quarter of the special students worked full-time, while one-quarter worked part-time.
3. Approximately 75% of the special students had over six years of experience, the mean years of experience being between 6 and 10 years.
4. Approximately 60% of the special students were staff nurses. Comments regarding the section "other" appear in Appendix D.

Summary Profile of The Special Students

The majority of the special students were female, either 25 to 29 years of age or 35-39 years of age; married with no children; scored between 500 and 550 on the R.N. exams; graduated from a hospital program in 1970 or later; thought their basic nursing program was an effective one; were taking prerequisite courses for entrance to the Post-R.N. program; planned to complete their degree; thought a degree would result in obtaining more satisfying work or allowing them to change their field of work; thought a degree was not necessary or necessary only in the areas of teaching, supervision or public health; were presently employed; had over six years of experience; and were staff nurses.

Table 4.5

Special Students: Nurse Career Behavior Characteristics.
Frequency of responses about their nursing career.
N = 36

Nursing Career Characteristics	Frequency No.	Pct.
Currently Employed		
1. Yes	35	97
2. No	1	3
Type of Employment		
1. Full-time	26	72
2. Part-time	9	25
0.	1	3
Years of Experience		
1. 1-2 years	1	3
2. 3-5 years	7	19
3. 6-10 years	12	33
4. 11-15 years	11	31
5. 16 or more	4	11
0.	1	3
$\bar{X}$* = 3.29		
Title of Current Position		
1. Staff Nurse	22	61
2. Head Nurse or Assistant	3	8
3. Supervisor	1	3
4. Instructor	2	6
5. Community Health Nurse	2	6
6. Nursing Administration	1	3
7. Clinical Specialist	-	-
8. Nurse Consultant	1	3
9. Other	3	8
0.	1	3

* This mean represents the mean of response choices, i.e.: 1, 2, 3, 4, 5, not the actual score.

Characteristics of Graduates of the Post-R.N. Baccalaureate Program

In this section the results of the data analysis are reported and the findings about the characteristics of the graduates of a Post-R.N. program are discussed.

Findings

Demographics

The frequency distribution of responses of the graduates of the Post-R.N. program to questions about the characteristics of age, sex, marital status and number of children is shown in Table 4.6. The major findings were as follows:

1. The largest percentage of graduates were in two age groups: 25 to 29 years of age or 35-39 years of age.
2. All the responding graduates were female.
3. The respondents were divided between those single, 52% and those married, 42%.
4. The majority, 71%, of the graduates had no children.

Academic

The frequency distribution of the scores of the graduates on the R.N. exams and the achieved G.P.A. is shown in Table 4.7. The major findings were as follows:

1. The nursing exams with the highest mean scores as reported by the graduates were nursing of children and psychiatric nursing.
2. A large percentage of the graduates, up to 32% for psychiatric nursing, either did not remember their scores or had come from a system utilizing a different scoring method.

Table 4.6

Graduates: Demographic Characteristics.
Frequency of responses about demographic characteristics.
N = 31

Demographic Characteristics	Frequency No.	Pct.
Age		
1. Under 25	3	10
2. 25-29	12	39
3. 30-34	3	10
4. 35-39	8	26
5. 40-44	3	10
6. 45-49	2	7
7. 50 and over	0	0
Sex		
1. Female	31	100
2. Male	0	0
Marital Status		
1. Single	16	52
2. Married	13	42
3. Other	2	7
Number of Children		
0. None	22	71
1. One	2	7
2. Two	3	10
3. Three	2	7
4. Four	2	7
5. Five or more	0	0

Table 4.7

Graduates: Academic Characteristics.
Frequency of scores on R.N. Exams and G.P.A.
N = 31

Test Scores	Frequency No.	Pct.
Medical Nursing		
1. 350-399	2	7
2. 400-449	-	-
3. 450-499	2	7
4. 500-549	4	13
5. 550-599	5	16
6. 600-649	6	19
7. 650+	3	10
0. Other	9	29
$\bar{X}^* = 4.82$		
Surgical Nursing		
1. 350-399	-	-
2. 400-449	4	13
3. 450-499	2	7
4. 500-549	4	13
5. 550-599	5	16
6. 600-649	5	16
7. 650+	3	10
0. Other	8	26
$\bar{X}^* = 4.61$		
Nursing of Children		
1. 350-399	1	3
2. 400-449	-	-
3. 450-499	4	13
4. 500-549	4	13
5. 550-599	4	13
6. 600-649	3	10
7. 650+	7	23
0. Other	8	26
$\bar{X}^* = 5.04$		

Table 4.7 (Cont'd.)

R.N. Scores	Frequency No.	Pct.
Obstetric Nursing		
1. 350-399	-	-
2. 400-449	3	10
3. 450-499	4	13
4. 500-549	3	10
5. 550-599	6	19
6. 600-649	3	10
7. 650+	4	13
0. Other	8	26
$\bar{X}$* = 4.61		
Psychiatric Nursing		
1. 350-399	1	3
2. 400-449	1	3
3. 450-499	1	3
4. 500-549	-	-
5. 550-599	8	26
6. 600-649	8	26
7. 650+	2	7
0. Other	10	32
$\bar{X}$* = 5.14		
G.P.A.		
1. 5.0-5.9	1	3
2. 6.0-6.9	9	29
3. 7.0-7.9	15	48
4. 8.0-8.9	5	16
0.	1	3
$\bar{X}$* = 2.80		

* This mean represents the mean of response choices, i.e.: 1, 2, 3, 4, 5, 6, etc., not the actual score.

3. The mean score, as reported by the graduates, on all five exams was over 500.

4. The mean G.P.A. achieved by the graduates was over 6.5.

Basic Nursing Education

The frequency distribution of the graduates responses to questions about the type of basic program, year of graduation, and effectiveness of the basic program for preparing them for the job they were doing prior to entering the degree program is shown in Table 4.8. The major findings were as follows:

1. Approximately two-thirds of the graduates had received their initial training in a hospital program.

2. The majority of the graduates, 60%, had graduated from their basic program in 1970 or later.

3. There was an even split between those who thought the basic program was effective, 48%, and those who thought it was not effective, 45%, in preparing them for the position they held prior to entering the degree program.

Post-R.N. Baccalaureate Education

The frequency distribution of the responses of the graduates to questions about courses they took, time to complete the degree, effectiveness of the Post-R.N. program, whether they obtained the employment they expected upon completion of the program, the major outcome of completing a degree, and their beliefs about a degree is shown in Table 4.9. The major findings were as follows:

1. The majority of the graduates, 61%, were required to take pre-requisite courses.

Table 4.8

Graduates: Basic Nursing Education Characteristics.
Frequency of responses about their basic nursing program.
N = 31

Characteristics of Basic Program	Frequency No.	Pct.
Type of Basic Program		
1. 3 year Hospital	19	61
2. 2 year College	7	23
3. Other	5	16
Year of Graduation from Basic Program		
1. Before 1960	3	10
2. 1960-1964	3	10
3. 1965-1969	6	19
4. 1970-1974	5	16
5. 1975-1979	14	45
Effective Basic Program		
1. Yes	15	48
2. No	14	45
0.	2	7

Table 4.9

Graduates: Post - R.N. Baccalaureate Education.
Frequency of responses about degree education.
N = 31

Post - R.N. Education	Frequency No.	Pct.
Required Pre-requisite Courses		
1. Yes	19	61
2. No	12	39
Took Credit Non-pre-requisite Courses		
1. Yes	17	55
2. No	14	45
Time to Complete Degree		
1. Less than 2 years	2	7
2. 2 years	17	55
3. 3 years	9	29
4. 4 years	3	10
5. More than 4 years	0	-
Effective Baccalaureate Program		
1. Yes	23	74
2. No	6	19
0.	2	7
Employment Expected		
1. Yes	23	74
2. No	7	23
0.	1	3

Table 4.9 (Cont'd.)

Post - R.N. Education	Frequency No.	Pct.
Major Outcome of Degree		
1. Improved working conditions	6	19
2. Improved salary	-	-
3. More challenging or satisfying work	12	39
4. Change field of work	8	26
5. Personal satisfaction	3	10
6. Other	2	7
Belief about degree		
1. Do not need a degree	1	3
2. Government will require a degree	-	-
3. A.A.R.N. will require a degree	2	7
4. Nurses in teaching, supervision or public health need a degree	2	7
5. Do need a degree	22	71
6. Other	4	13

2. Slightly more graduates took courses which were not pre-requisite, 55%, than graduates who did not take courses, 45%.

3. Most of the graduates, 74%, responded that the Post-R.N. program effectively prepared them for the position they held since graduation. Twenty percent indicated the program had not been effective. Comments appear in Appendix D.

4. Three-quarters of the graduates obtained the employment position they expected after graduation.

5. The major outcome of obtaining a degree for the graduates had been obtaining more satisfying work, 39%, and the opportunity to change their field of work, 26%. Also of note is the fact that 19% felt their working conditions had improved. Comments appear in Appendix D.

6. The graduates indicated that nurses do need a degree, 71%. Comments appear in Appendix D.

Nurse Career Behavior

The frequency distribution of the responses of the graduates to questions about their position before entering the degree program and after completing the degree program; type of employment; years of experience; and necessity of having degree to do their job are shown in Table 4.10. The major findings were as follows:

1. Three-quarters of the graduates worked as a staff nurse prior to entering the degree program while only 16% worked as a staff nurse after obtaining the degree.

2. The percentage of nurses working as instructors rose from 7% before the degree to 19% after the degree.

3. The percentage of nurses working as community health nurses rose from 7% before the degree to 36% after the degree.

4. Descriptions of "other" types of positions which the graduates held appear in Appendix D.

Table 4.10

Graduates: Nurse Career Behavior Characteristics.
Frequency of responses about their nursing career.
N = 31

Nursing Career Characteristics	Frequency No.	Pct.
Title of Last Position		
1. Staff Nurse	23	74
2. Head Nurse or Assistant	1	3
3. Supervisor	1	3
4. Instructor	2	7
5. Community Health Nurse	2	7
6. Nursing Administration	0	0
7. Clinical Specialist	0	0
8. Nurse Consultant	0	0
9. Other	2	7
Years of Experience		
1. 1-2 years	10	32
2. 3-5 years	6	19
3. 6-10 years	7	23
4. 11-15 years	5	16
5. 16 or more	3	10
$\bar{X}^*$ = 2.52		
Currently Employed		
1. Yes	30	97
2. No	1	3
Type of Employment		
1. Full-time	27	87
2. Part-time	3	10
0.	1	3

Table 4.10 (Cont'd.)

Nursing Career Characteristics	Frequency No.	Pct.
Title of Current Position		
1. Staff Nurse	5	16
2. Head Nurse or Assistant	2	7
3. Supervisor	1	3
4. Instructor	6	19
5. Community Health Nurse	11	36
6. Nursing Administration	-	-
7. Clinical Specialist	-	-
8. Nurse Consultant	-	-
9. Other	5	16
0.	1	3
Function in Position Without a Degree		
1. Yes	9	29
2. No	21	68
0.	1	3

* This mean represents the mean of the response choice, i.e.: 1, 2, 3, 4, etc., not the years.

5. Fifty percent of the graduates had over six years of experience. The mean years of experience was between 3 and 5 years.

6. Most of the graduates, 97% were employed.

7. Most of the graduates, 87%, worked full-time.

8. Two-thirds of the graduates indicated they could not function as effectively in the position they presently held without a degree.

Summary Profile of the Graduates of the Post-R.N. Program

All of the responding graduates were female. Most were: either 25-29 years of age or 35-39 years of age; had no children; scored over 500 on the R.N. exams; achieved a G.P.A. of over 6.5; graduated from a hospital program in 1970 or later; took pre-requisite courses for entrance to the Post-R.N. program; thought their Post-R.N. degree program was an effective one, obtained the position they expected upon completing the degree, thought the degree had allowed them to obtain more satisfying work or to change their field of work; thought that a degree was necessary; were employed and worked full-time in positions as staff nurse, instructors, or community health nurses; and felt the degree was necessary to function in the position they now held.

Similarities and Differences In The Characteristics of the Special Students and Graduates

The findings reported above indicate that a large number of the characteristics were similar for the two groups. The findings for age, sex, number of children, mean scores on R.N. exams, type of basic program, year of graduation from basic program, and employment status

were similar for the two groups. One similarity in the findings was of particular note. The special students expected the degree would allow them to obtain more satisfying work or change their field of work. The graduates indicated that for them indeed this was so.

Differences in the frequency distribution of findings for the two groups existed with regard to other characteristics. These differences were as follows:

1. More special students than graduates were married. One could speculate about the relationship of the state of singleness and obtaining a degree in preparation for a life with a career focus.

2. More of the special students, 61%, thought their basic program had effectively prepared them to function in the position they now held than did the graduates, in retrospect, 48%. One suspects that the graduates after completing the degree appreciated how much more there was to learn about nursing than the basic program offered.

3. More special students, 25%, thought nurses did not need a degree than did the graduates, 3%. Only 17% of the special students believed a degree was necessary while 71% of the graduates felt a degree was required. Apparently after completing the program and resuming work, the graduates were convinced of the need for a degree. This change in belief was perhaps also influenced by the next point of difference.

4. Most of the special students, 61%, were functioning as staff nurses and most of the graduates, 74% had functioned as staff nurses prior to entering the degree program, while only 16% of the graduates functioned as staff nurses after completing the degree. This change in position could account for the realization of the need for a degree.

Summary of Characteristics of the Special Students and the Graduates

The findings about the selected variable blocks of characteristics: demographic, academic, basic education, Post-R.N. education and nurse career behavior; of the special students and the graduates were analyzed and discussed. The two groups were found to be similar for most of the variables. They were therefore considered to be comparable groups.

Differences appeared with respect to marital status, reported effectiveness of the basic program, and beliefs about the need for a degree. These differences were analyzed and discussed. The differences would appear reasonable when one considers that the graduates have now completed the program and are functioning in the work force as degree nurses.

In the next section the findings which relate to Problem 2 are presented.

Problem 2

Problem 2 was stated as follows:

> What are the self-reports of nurses awaiting entry to a Post-R.N. program and those who have graduated from the program of how frequently and how well they perform selected nursing activities?

Special Students' Performance of Nursing Activities

In this section the results of the data analysis are reported and the findings about how frequently and how well the special students report they performed the selected nursing activities are discussed.

Findings

The frequency distribution of the responses of the special students to the questions of how frequently and how well they reported they performed activities in the nursing dimensions of Leadership, Teaching/Collaboration, Planning/Evaluation, IPR/Communications, and Professional Development is shown in Table 4.11. The possible frequency response categories were: never, occasionally, or frequently. The possibly quality of performance response categories were: not very well, satisfactorily, well, or very well. The findings reported represent the responses of the special students as a group, not individually. The major findings were as follows:

Frequency of Performance

1. The mean frequency rating on all except three items indicate that the special students performed the activities in the five dimensions "occasionally" or "more often" (mean $>$ 2.00).

2. One Teaching activity: communicate ideas in writing to patients and their families, was performed less often than "occasionally" (mean $<$ 2.00).

3. Two Professional Development activities: maintain high performance standards and display a positive attitude, were "frequently" performed (mean = 3.00).

Quality of Performance

1. The special students reported they performed all the activities in the five dimensions better than "satisfactorily" (mean $>$ 2.00).

2. One Leadership activity: accepting responsibility for the level of care provided by those under your direction, was reported to be performed "well" (mean $>$ 3.00).

Table 4.11

Special Students: Frequency of activity performance and self-report of how well they performed nursing activities in current job.

Scale	Item Number	Activity	Frequency of Activity Performance*								Perceived Quality of Activity Performance**									
			No.			Pct.			N	$\bar{X}$	No.				Pct.				N	$\bar{X}$
			1	2	3	1	2	3			1	2	3	4	1	2	3	4		
Leadership	3	Give praise and recognition for achievement to those under your direction.	1	9	21	3	25	58	31	2.65	-	8	15	7	-	22	42	19	30	2.97
	20	Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health personnel.	1	10	21	3	28	58	32	2.63	-	11	14	6	-	31	39	17	31	2.84
	22	Guide other health team members in planning for nursing care.	-	17	16	-	47	44	33	2.49	-	13	14	6	-	36	39	17	33	2.79
	23	Accept responsibility for the level of care provided by those under your direction.	1	7	23	3	19	64	31	2.71	-	5	17	8		14	47	22	30	3.10
	34	Remain open to the suggestions of those under your direction and use them when appropriate.	1	9	21	3	25	58	31	2.65	-	9	13	7	-	25	36	19	29	2.93
Teaching/ Collaboration	1	Teach a patient's family members about the patient's needs.	4	12	17	11	33	47	33	2.39	2	2	15	12	6	6	42	33	31	3.19
	4	Teach preventive health measures to patients and their families.	4	14	15	11	39	42	33	2.33	1	9	12	8	3	25	33	22	30	2.90
	5	Identify and use community resources in developing a plan of care for a patient and his family.	6	13	14	17	36	39	33	2.24	1	9	14	4	3	25	39	11	28	2.75

Table 4.11 (continued)

Scale	Item Number	Activity	Frequency of Activity Performance*								Perceived Quality of Activity Performance**									
			No.			Pct.			N	$\bar{X}$	No.				Pct.				N	$\bar{X}$
			1	2	3	1	2	3			1	2	3	4	1	2	3	4		
	11	Adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background, and sensory deprivations.	2	11	20	6	31	56	34	2.55	2	7	15	8	6	19	42	22	32	2.91
	13	Develop innovative methods and materials for teaching patients.	5	22	6	14	61	17	33	2.03	4	12	11	4	11	33	31	11	31	2.48
	24	Promote the use of interdisciplinary resource persons.	3	11	20	6	31	56	33	2.55	1	10	10	11	3	28	28	31	32	2.97
	25	Use teaching aids and resource materials in teaching patients and their families.	5	19	9	14	53	25	33	2.12	2	13	9	6	6	36	25	17	30	2.63
	26	Encourage the family to participate in the care of the patient.	4	14	15	11	39	42	33	2.33	1	8	13	8	3	22	36	22	30	2.93
	27	Identify and use resources within your health care in developing a plan of care for a patient and his family.	4	11	18	11	31	50	33	2.42	1	10	12	6	3	28	33	27	29	2.79
	32	Communicate facts, ideas, and professional opinions in writing to patients and their families.	14	13	6	39	36	17	33	1.76	4	9	6	4	11	25	17	11	23	2.44
	33	Plan for integration of patient needs with family needs.	4	18	11	11	50	31	33	2.21	3	12	8	6	8	33	22	17	29	2.59

Table 4.11 (continued)

Scale	Item Number	Activity	Frequency of Activity Performance*								Perceived Quality of Activity Performance**									
			No.			Pct.			N	$\bar{X}$	No.				Pct.				N	$\bar{X}$
			1	2	3	1	2	3			1	2	3	4	1	2	3	4		
Planning/ Evaluation	2	Coordinate the plan of nursing care with the medical plan of care.	4	8	21	11	22	58	33	2.52	3	7	14	7	8	19	39	19	31	2.81
	6	Identify and include in nursing care plans anticipated changes in a patient's condition.	4	13	15	11	36	42	32	2.34	2	12	13	3	6	33	36	8	30	2.57
	7	Evaluate results of nursing care.	1	12	19	3	33	53	32	2.56	1	9	15	6	3	25	42	17	31	2.84
	9	Develop a plan of nursing care for a patient.	4	12	17	11	33	47	33	2.39	2	5	16	7	6	14	44	19	30	2.93
	10	Initiate planning and evaluation of nursing care with others.	1	19	12	3	53	33	32	2.34	1	15	11	4	3	42	31	11	31	2.58
	12	Identify and include immediate patient needs in the plan of nursing care.	1	8	24	3	22	67	33	2.70	1	7	15	9	3	19	42	25	32	3.00
	31	Contribute to the plan of nursing care for the patient.	2	10	20	6	28	56	32	2.56	1	9	14	6	3	25	39	17	30	2.83
IPR/ Communications	8	Promote the inclusion of the patient's decisions and desires concerning his care.	3	5	24	8	14	67	32	2.66	1	4	15	9	3	11	42	25	29	3.10
	14	Communicate feeling of acceptance of each patient and a concern for the patient's welfare.	-	4	29	-	11	81	33	2.88	-	6	11	16	-	17	31	44	33	3.30
	15	Seek assistance when necessary.	-	17	16	-	47	44	33	2.49	1	4	20	8	3	11	56	22	33	3.06

Table 4.11 (continued)

Scale	Item Number	Activity	Frequency of Activity Performance*								Perceived Quality of Activity Performance**									
			No.			Pct.			N	$\bar{X}$	No.				Pct.				N	$\bar{X}$
			1	2	3	1	2	3			1	2	3	4	1	2	3	4		
	16	Help a patient communicate with others.	1	19	13	3	53	36	33	2.36	1	13	13	5	3	36	36	14	32	2.69
	17	Verbally communicate facts, ideas, and feeling to other health team members.	-	5	28	-	14	78	33	2.85	-	5	17	11	-	14	47	31	33	3.18
	18	Promote the patient's right of privacy.	1	3	29	3	8	81	33	2.85	-	3	14	15	-	8	39	42	32	3.38
	19	Contribute to an atmosphere of mutual trust, acceptance, and respect among other health team members.	-	3	30	-	8	83	33	2.91	-	7	16	10	-	19	44	28	33	3.09
	21	Explain nursing procedures to a patient prior to performing them.	-	4	29	-	11	81	33	2.88	-	2	16	15	-	6	44	42	33	3.39
	28	Use nursing procedures as opportunities for interaction with patients.	1	9	23	3	25	64	33	2.67	-	5	12	14	-	14	33	39	31	3.29
	29	Contribute to productive working relationships with other health team members.	-	6	27	-	17	75	33	2.82	-	9	17	6	-	25	47	17	32	2.91
	30	Help a patient meet his emotional needs.	-	13	20	-	36	56	33	2.61	-	13	13	6	-	36	36	17	32	2.78
	35	Use opportunities for patient teaching when they arise.	1	9	23	3	25	64	33	2.67	-	7	14	10	-	19	39	28	31	3.10
Professional Development	36	Use learning opportunities for ongoing personal and professional growth.	-	9	24	-	25	67	33	2.73	-	6	15	8	-	17	42	22	29	3.07

Table 4.11 (continued)

Scale	Item Number	Activity	Frequency of Activity Performance*								Perceived Quality of Activity Performance**									
			No.			Pct.			N	$\bar{X}$	No.				Pct.				N	$\bar{X}$
			1	2	3	1	2	3			1	2	3	4	1	2	3	4		
	37	Display self-direction.	-	4	29	-	11	81	33	2.88	-	6	14	11	-	17	39	31	31	3.16
	38	Accept responsibility for own actions.	-	2	30	-	6	83	32	2.94	-	2	13	15	-	6	36	42	30	3.43
	39	Assume new responsibilities within the limits of capabilities.	-	7	26	-	19	72	33	2.79	-	4	16	11	-	11	44	31	31	3.23
	40	Maintain high standards of self-performance.	-	-	33	-	-	92	33	3.00	-	4	15	12	-	11	42	33	31	3.26
	41	Demonstrate self-confidence.	-	2	31	-	6	86	33	2.94	-	7	12	12	-	19	33	33	31	3.16
	42	Display a generally positive attitude.	-	-	33	-	-	92	33	3.00	-	3	15	13	-	8	42	36	31	3.32
	43	Demonstrate knowledge of the legal boundaries of nursing.	-	9	24	-	25	67	33	2.73	1	8	13	9	3	22	36	25	31	2.97
	44	Demonstrate knowledge of the ethics of nursing.	-	9	24	-	25	67	33	2.73	-	10	12	9	-	28	33	25	31	2.97
	45	Accept and use constructive criticism.	-	10	23	-	28	64	33	2.70	-	9	16	6	-	25	44	17	31	2.90

*Frequency Rating Scale

1. Never
2. Occasionally
3. Frequently

**Quality Rating Scale

1. Not Very Well
2. Satisfactorily
3. Well
4. Very Well

3. One Planning activity: identify and include immediate patient needs in the plan of nursing care, was reported to be performed "well" (mean = 3.00).

4. Nine of the twelve IPR/Communication activities were reported to be performed better than "well" (mean > 3.00).

5. Seven of the ten Professional Development activities were reported to be performed better than "well" (mean > 3.00).

6. No activities were reported to be performed "not very well" or "very well" by the special students.

7. The dimensions with the highest reported mean of wellness of activity performance were IPR/Communication and Professional Development (Table 4.12).

Table 4.12

Special Students: Mean of self-reported quality of performance* of nursing activities

Activity Scale	N	$\bar{X}$
Leadership	33	2.90
Teaching/Collaboration	32	2.79
Planning/Evaluation	33	2.80
IPR/Communication	33	3.10
Professional Development	31	3.14

* Quality of performance rating scale.
1. Not very well
2. Satisfactory
3. Well
4. Very well

Summary of Special Students' Reported Performance of Nursing Activities

The special students performed the activities in the five dimensions of nursing "occasionally" or "more often". In addition, they reported they performed the activities in all the dimensions better than "satisfactorily". The nursing dimensions with the highest reported mean of quality of performance were IPR/Communication and Professional Development.

Graduates' Performance of Nursing Activities

In this section the results of the data analysis are reported and the findings about how frequently and how well the graduates reported they performed the nursing activities are discussed.

Findings

Graduates' Reported Frequency of Activity Performance

The frequency distribution of the responses of the graduates to questions of how frequently they performed nursing activities before entering the degree program and after completing the degree program are shown in Table 4.13. The reported findings represent the responses of the graduates as a group, not individually. The findings were as follows:

1. The graduates reported they performed all activities in the dimensions of Leadership, Teaching/ Collaboration, Planning/Evaluation, and Professional Development more often after completing the degree than before entering the degree program.

Table 4.13

Graduates: Self-report of frequency* of activity performance before entering degree program and after completing degree program.

Scale	Item Number	Activity	Before Degree No. 1	2	3	Pct. 1	2	3	N	$\bar{X}$	After Degree No. 1	2	3	Pct. 1	2	3	N	$\bar{X}$
Leadership	3	Give praise and recognition for achievement to those under your direction.	1	19	11	3	61	36	31	2.32	3	6	21	10	19	68	30	2.60
	20	Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health personnel.	3	13	15	10	42	48	31	2.39	2	12	17	7	39	55	31	2.48
	22	Guide other health team members in planning for nursing care.	4	18	8	13	58	26	30	2.13	1	13	16	3	42	52	30	2.50
	23	Accept responsibility for the level of care provided by those under your direction.	2	13	15	7	42	48	30	2.43	4	4	22	13	13	71	30	2.60
	34	Remain open to the suggestions of those under your direction and use them when appropriate.	3	13	14	10	42	45	30	2.37	1	7	22	3	23	71	30	2.70
Teaching/ Collaboration	1	Teach a patient's family members about the patient's needs.	1	17	13	3	55	42	31	2.39	2	10	19	7	32	61	31	2.55
	4	Teach preventive health measures to patients and their families	2	20	8	7	65	26	30	2.20	0	6	24	0	19	77	30	2.80

Table 4.13 (Cont'd.)

Scale	Item Number	Activity	Before Degree No. 1	2	3	Pct. 1	2	3	N	$\bar{X}$	After Degree No. 1	2	3	Pct. 1	2	3	N	$\bar{X}$
Teaching/ Collaboration (Cont'd)	5	Identify and use community resources in developing a plan of care for a patient and his family .	8	19	3	26	61	10	30	1.83	3	4	23	10	13	74	30	2.67
	11	Adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background, and sensory deprivations.	4	19	8	13	61	26	31	2.13	1	5	25	3	16	81	31	2.77
	13	Develop innovative methods and materials for teaching patients.	7	22	2	23	71	7	31	1.84	1	15	15	3	48	48	31	2.45
	24	Promote the use of interdisciplinary resource persons.	5	19	7	16	61	23	31	2.07	0	6	25	0	19	81	31	2.81
	25	Use teaching aids and resource materials in teaching patients and their families.	8	20	3	26	65	10	31	1.84	2	6	23	7	19	74	31	2.68
	26	Encourage the family to participate in the care of the patient.	1	23	7	3	74	23	31	2.20	3	4	24	10	13	77	31	2.68
	27	Identify and use resources within your health care agency in developing a plan of care for a patient and his family.	4	19	8	13	61	26	31	2.13	2	7	21	7	23	68	30	2.63

Table 4.13 (Cont'd.)

Scale	Item Number	Activity	Before Degree No. 1	No. 2	No. 3	Pct. 1	Pct. 2	Pct. 3	N	$\bar{X}$	After Degree No. 1	No. 2	No. 3	Pct. 1	Pct. 2	Pct. 3	N	$\bar{X}$
Teaching/ Collaboration (Cont'd)	32	Communicate facts, ideas, and professional opinions in writing to patients and their families.	17	8	4	55	26	13	29	1.55	7	14	8	23	45	26	29	2.03
	33	Plan for the integration of patient needs with family needs.	3	20	7	10	65	23	30	2.13	1	11	18	3	36	58	30	2.57
Planning/ Evaluation	2	Coordinate the plan of nursing care with the medical plan of care.	1	10	20	3	32	65	31	2.61	1	6	24	3	19	77	31	2.74
	6	Identify and include in nursing care plans anticipated changes in a patient's condition.	5	17	8	16	55	26	30	2.10	2	9	19	7	29	61	30	2.57
	7	Evaluate results of nursing care.	1	12	17	3	39	55	30	2.53	1	3	26	3	10	84	30	2.83
	9	Develop a plan of nursing care for a patient.	5	11	14	16	35	45	30	2.30	3	9	18	10	29	58	30	2.50
	10	Initiate planning and evaluation of nursing care with others.	2	21	8	7	68	26	31	2.19	1	10	20	3	32	65	31	2.61
	12	Identify and include immediate patient needs in the plan of nursing care.	2	13	16	7	42	52	31	2.45	1	2	28	3	7	90	31	2.87
	31	Contribute to the plan of nursing care for the patient.	0	13	17	0	42	55	30	2.57	1	5	24	3	16	77	30	2.77

Table 4.13 (Cont'd.)

Scale	Item Number	Activity	Before Degree No. 1	2	3	Pct. 1	2	3	N	$\bar{X}$	After Degree No. 1	2	3	Pct. 1	2	3	N	$\bar{X}$
IPR/ Communica-tions	8	Promote the inclusion of the patient's decisions and desires concerning his care.	0	20	9	0	65	29	29	2.31	0	2	27	0	7	87	29	2.93
	14	Communicate a feeling of acceptance of each patient and a concern for the patient's welfare.	0	4	27	0	13	87	31	2.87	0	3	28	0	10	90	31	2.90
	15	Seek assistance when necessary.	2	6	22	7	19	71	30	2.67	0	9	21	0	29	68	30	2.70
	16	Help a patient communicate with others.	3	15	12	10	48	39	30	2.30	2	10	18	7	32	58	30	2.53
	17	Verbally communicate facts, ideas, and feeling to other health team members.	0	6	25	0	19	81	31	2.81	0	5	26	0	16	84	31	2.84
	18	Promote the patient's right to privacy.	1	7	23	3	23	74	31	2.71	0	8	22	0	26	71	30	2.73
	19	Contribute to an atmosphere of mutual trust, acceptance and respect among other health team members.	0	12	19	0	39	61	31	2.61	0	6	25	0	19	81	31	2.81
	21	Explain nursing procedures to a patient prior to performing them.	1	6	24	3	19	77	31	2.74	1	8	22	3	26	71	31	2.68
	28	Use nursing procedures as opportunities for interaction with patients.	1	4	25	3	13	81	30	2.80	1	9	20	3	29	65	30	2.63

Table 4.13 (Cont'd.)

Scale	Item Number	Activity	Before Degree No. 1	2	3	Pct. 1	2	3	N	$\bar{X}$	After Degree No. 1	2	3	Pct. 1	2	3	N	$\bar{X}$
IPR/ Communications (Cont'd)	29	Contribute to productive working relationships with other health team members.	0	14	16	0	45	52	30	2.53	1	8	22	0	26	71	30	2.73
	30	Help a patient meet his emotional needs.	0	14	16	0	45	52	30	2.53	1	7	21	3	23	68	29	2.69
	35	Use opportunities for patient teaching when they arise.	0	13	18	0	42	58	31	2.58	0	5	26	0	16	84	31	2.84
Professional Development	36	Use learning opportunities for ongoing personal and professional growth.	1	13	17	3	42	55	31	2.52	0	4	27	0	13	87	31	2.87
	37	Display self-direction.	0	13	18	0	42	58	31	2.58	0	2	29	0	7	94	31	2.94
	38	Accept responsibility for own actions.	0	2	27	0	7	87	29	2.93	0	0	29	0	0	94	29	3.00
	39	Assume new responsibilities within the limits of capabilities.	0	8	23	0	26	74	31	2.74	0	1	30	0	3	97	31	2.97
	40	Maintain high standards of self-performance.	0	3	28	0	10	90	31	2.90	0	2	29	0	7	94	31	2.94
	41	Demonstrate self-confidence.	0	14	17	0	45	55	31	2.55	0	1	30	0	3	97	31	2.97
	42	Display a generally positive attitude.	0	8	23	0	26	74	31	2.74	0	1	30	0	3	97	31	2.97
	43	Demonstrate knowledge of the legal boundaries.	5	19	6	16	61	19	30	2.03	2	10	18	7	32	58	30	2.53

Table 4.13 (Cont'd.)

Scale	Item Number	Activity	Before Degree No. 1	2	3	Pct. 1	2	3	N	$\bar{X}$	After Degree No. 1	2	3	Pct. 1	2	3	N	$\bar{X}$
Professional Development (Cont'd.)	44	Demonstrate knowledge of the ethics of nursing.	1	14	16	3	45	52	31	2.48	0	7	24	0	23	77	31	2.77
	45	Accept and use constructive criticism.	0	17	14	0	55	45	31	2.45	0	11	20	0	36	65	31	2.65

*Frequency Rating Scale
1. Never
2. Occasionally
3. Frequently

2. The graduates reported they performed most activities in the dimension of IPR/Communications more often after completing the degree than before entering the degree program. Two activities: explain procedures to patients prior to performing them, and use nursing procedures as an opportunity for interaction with patients were performed slightly more often before entering the degree.

3. The graduates performed most activities "occasionally" or more often before entering the degree program (mean $>$ 2.00).

4. Four Teaching/Collaboration activities were performed less often than "occasionally" before entering the degree program (mean $<$ 2.00). These activities were: identify and use community resources in developing a plan of care for a patient and family; develop innovative methods and materials for teaching patients; use teaching aids and resource materials in teaching; and communicate facts, ideas, and professional opinions in writing to patients and their families.

5. The graduates performed all the activities "occasionally" or more often after completing the degree program (mean $>$ 2.00).

Summary of Graduates' Reported Frequency of Performance of Nursing Activities

The graduates performed most of the activities in the selected dimensions of nursing "occasionally" or more often both before entering the degree program and after completing the degree program. In addition, they performed most of the activities more often after completing the degree program than they performed the same activities before entering the degree program.

Graduates' Reported Quality of Activity Performance

The frequency distribution of the responses of the graduates to questions of how well they performed nursing activities before entering the degree program are shown in Table 4.14. The reported findings represent the responses of the graduates as a group, not individually. The findings were as follows:

1. The graduates reported they performed all activities in the nursing dimensions of Leadership, Planning/Evaluation, IPR/Communication, and Professional Development better than "satisfactorily" (mean > 2.00).

2. A number of activities in the dimensions of IPR/Communication and Professional Development were reported to have been performed better than "well" (mean > 3.00) before entering the degree program.

3. Three activities in the dimension of Teaching/Collaboration were reported to have been performed less than "satisfactorily" (mean < 2.00) before entering the degree program. These activities were: identify and use community resources in developing a plan of care; develop innovative methods and materials for teaching patients; and communicate facts, ideas, and professional opinions in writing to patients and their families.

4. The graduates reported they performed most activities in the nursing dimensions better than "well" (mean > 3.00) after completing the degree program.

5. All activities in the dimension of Leadership were reported to be performed better than "well" (mean > 3.00) after completing the degree program.

6. Two activities in the dimension of Teaching/ Collaboration were reported to be performed less than "well" (mean < 3.00) after completing the degree program. These activities were: develop innovative methods and materials for teaching patients and communicate facts, ideas, and professional opinions in writing to patients and

Table 4.14

Graduates: Distribution of self-reports of how well they perform nursing activities before entering degree program and after completing degree program.

Scale	Item Number	Activity	Before Degree*										After Degree*									
			No.				Pct.				N	$\bar{X}$	No.				Pct.				N	$\bar{X}$
			1	2	3	4	1	2	3	4			1	2	3	4	1	2	3	4		
Leadership	3	Give praise and recognition for achievement to those under your direction.	0	14	11	5	0	45	36	16	30	2.70	0	2	18	10	0	7	58	32	30	3.27
	20	Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health personnel.	2	10	12	5	7	32	39	16	29	2.69	0	5	15	10	0	16	48	32	30	3.17
	22	Guide other health team members in planning for nursing care.	2	9	15	2	7	29	48	7	28	2.61	0	6	15	8	0	19	48	26	29	3.07
	23	Accept responsibility for the level of care provided by those under your direction.	1	6	14	7	3	19	45	23	28	2.96	1	2	15	10	3	7	48	32	28	3.21
	34	Remain open to the suggestions of those under your direction and use them when appropriate.	4	6	14	4	13	19	45	13	28	2.64	0	3	14	12	0	10	45	39	29	3.31
Teaching/ Collaboration	1	Teach a patient's family members about the patient's needs.	2	14	11	4	7	45	36	13	31	2.55	-	1	20	9	0	3	65	29	30	3.27
	4	Teach preventive health measures to patients and their families.	4	9	14	3	13	29	45	10	30	2.53	0	0	17	13	0	0	55	42	30	3.43
	5	Identify and use community resources in developing a plan of care for a patient and his family.	11	11	5	2	36	36	16	7	29	1.93	1	3	13	12	3	10	42	39	29	3.24

Table 4.14 (continued)

Scale	Item Number	Activity	Before Degree*										After Degree*									
			No.				Pct.				N	$\bar{X}$	No.				Pct.				N	$\bar{X}$
			1	2	3	4	1	2	3	4			1	2	3	4	1	2	3	4		
	11	Adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background, and sensory deprivations.	3	18	8	1	10	58	26	3	30	2.23	0	4	15	11	0	13	48	36	30	3.23
	13	Develop innovative methods and materials for teaching patients.	8	18	4	0	26	58	13	0	30	1.87	1	11	13	5	3	36	42	16	30	2.73
	24	Promote the use of interdisciplinary resource persons.	4	15	8	3	13	48	26	10	30	2.33	0	6	13	12	0	19	42	39	31	3.19
	25	Use teaching aids and resource materials in teaching patients and their families.	9	11	9	1	29	36	29	3	30	2.07	0	6	16	8	0	19	52	26	30	3.07
	26	Encourage the family to participate in the care of the patient.	2	12	14	3	7	39	45	10	31	2.58	0	4	16	11	0	13	52	36	31	3.23
	27	Identify and use resources within your health care in developing a plan of care for a patient and his family.	4	14	10	3	13	45	32	10	31	2.39	1	4	16	10	3	13	52	32	31	3.13
	32	Communicate facts, ideas, and professional opinions in writing to patients and their families.	9	7	6	1	29	27	19	3	23	1.96	3	6	13	3	10	19	42	10	25	2.64
	33	Plan for integration of patient needs with family needs.	6	10	11	3	19	32	36	10	30	2.37	1	7	12	9	3	23	39	29	29	3.00

Table 4.14 (continued)

Scale	Item Number	Activity	Before Degree*										After Degree*									
			No.				Pct.				N	$\bar{X}$	No.				Pct.				N	$\bar{X}$
			1	2	3	4	1	2	3	4			1	2	3	4	1	2	3	4		
Planning/ Evaluation	2	Coordinate the plan of nursing care with the medical plan of care.	3	9	12	7	10	29	39	23	31	2.74	0	3	14	13	0	10	45	42	30	3.33
	6	Identify and include in nursing care plans anticipated changes in a patient's condition.	2	11	13	1	7	36	42	3	27	2.48	1	4	20	3	3	13	65	10	28	2.89
	7	Evaluate results of nursing care.	3	10	15	1	10	32	48	3	29	2.48	0	2	18	8	0	7	58	26	28	3.21
	9	Develop a plan of nursing care for a patient.	5	8	13	2	16	26	42	7	28	2.43	1	3	17	6	3	10	55	19	27	3.04
	10	Initiate planning and evaluation of nursing care with others.	5	16	6	3	16	52	19	10	30	2.23	1	6	16	7	3	19	52	23	30	2.97
	12	Identify and include immediate patient needs in the plan of nursing care.	1	9	9	9	3	29	29	29	28	2.93	0	2	15	12	0	7	48	39	29	3.35
	31	Contribute to the plan of nursing care for the patient.	1	10	14	5	3	32	45	16	30	2.77	0	3	18	8	0	10	58	26	29	3.17
IPR/ Communications	8	Promote the inclusion of the patient's decisions and desires concerning his care.	4	13	12	1	13	42	39	3	30	2.33	0	2	13	15	0	7	42	48	30	3.43
	14	Communicate feeling of acceptance of each patient and a concern for the patient's welfare.	1	5	15	10	3	16	48	32	31	3.10	0	2	14	15	0	7	45	48	31	3.42
	15	Seek assistance when necessary.	3	5	12	10	10	16	39	32	30	2.97	0	5	13	12	0	16	42	39	30	3.23

Table 4.14 (continued)

Scale	Item Number	Activity	Before Degree*										After Degree*									
			No.				Pct.				N	$\bar{X}$	No.				Pct.				N	$\bar{X}$
			1	2	3	4	1	2	3	4			1	2	3	4	1	2	3	4		
	16	Help a patient communicate with others.	1	13	9	5	3	42	29	16	28	2.64	0	8	13	7	0	26	42	23	28	2.96
	17	Verbally communicate facts, ideas, and feeling to other health team members.	3	5	16	7	10	16	52	23	31	2.87	0	4	15	12	0	13	48	39	31	3.26
	18	Promote the patient's right of privacy.	1	4	20	6	3	13	65	19	31	3.00	0	1	19	10	0	3	61	32	30	3.30
	19	Contribute to an atmosphere of mutual trust, acceptance, and respect among other health team members.	1	8	16	6	3	26	52	19	31	2.87	0	5	14	12	0	16	45	39	31	3.23
	21	Explain nursing procedures to a patient prior to performing them.	0	6	12	12	0	19	39	39	30	3.20	0	2	13	15	0	7	42	48	30	3.43
	28	Use nursing procedures as opportunities for interaction with patients.	0	5	16	8	0	16	42	26	29	3.10	0	4	13	12	0	13	42	39	29	3.28
	29	Contribute to productive working relationships with other health team members.	1	7	17	5	3	23	55	16	30	2.87	0	4	15	11	0	13	48	36	30	3.23
	30	Help a patient meet his emotional needs.	0	10	18	2	0	32	58	7	30	2.73	0	3	20	6	0	10	65	19	29	3.10
	35	Use opportunities for patient teaching when they arise.	0	13	14	4	0	42	45	13	31	2.71	0	2	17	12	0	7	55	39	31	3.32
Professional Development	36	Use learning opportunities for ongoing personal and professional growth.	1	10	11	9	3	32	36	29	31	2.90	1	1	11	18	3	3	36	58	31	3.48

Table 4.14 (continued)

Scale	Item Number	Activity	Before Degree*										After Degree*									
			No.				Pct.				N	$\bar{X}$	No.				Pct.				N	$\bar{X}$
			1	2	3	4	1	2	3	4			1	2	3	4	1	2	3	4		
	37	Display self-direction.	1	10	12	8	3	32	39	26	31	2.87	0	2	15	14	0	7	48	45	31	3.39
	38	Accept responsibility for own actions.	0	2	12	16	0	7	39	52	30	3.47	0	0	10	20	0	0	32	65	30	3.67
	39	Assume new responsibilities within the limits of capabilities.	0	6	11	14	0	19	36	45	31	3.26	0	1	12	18	0	3	39	58	31	3.55
	40	Maintain high standards of self-performance.	0	5	15	11	0	16	48	36	31	3.19	0	3	12	16	0	10	39	52	31	3.42
	41	Demonstrate self-confidence.	0	11	11	9	0	36	36	28	31	2.94	0	2	15	14	0	7	48	45	31	3.39
	42	Display a generally positive attitude.	2	5	13	11	7	16	42	36	31	3.07	0	1	11	19	0	3	36	61	31	3.58
	43	Demonstrate knowledge of the legal boundaries of nursing.	7	14	6	2	23	45	19	7	29	2.10	2	8	15	4	7	26	48	13	29	2.72
	44	Demonstrate knowledge of the ethics of nursing.	1	13	13	4	3	42	42	13	31	2.65	0	2	20	9	0	7	65	29	31	3.23
	45	Accept and use constructive criticism.	5	7	15	4	16	23	48	13	31	2.58	0	6	20	5	0	19	65	16	31	2.97

*Quality Rating Scale

1. Not Very Well
2. Satisfactorily
3. Well
4. Very Well

their families. These two activities were also rated lower by the graduates before entering the degree program.

7. Two activities in the dimension of Planning/ Evaluation were reported to be performed less than "well" (mean < 3.00) after completing the degree program. These activities were: identify and include in the nursing care plans anticipated changes in a patient's condition and initiate planning and evaluation of nursing care with others.

8. One activity in the dimension of IPR/Communication was reported to be performed less than "well" (mean < 3.00) after completing the degree program. This activity was: help a patient communicate with others.

9. Two activities in dimension of Professional Development were reported to be performed less than "well" (mean < 3.00) after completing the degree program. These activities were: demonstrate knowledge of the legal boundaries of nursing and accept and use constructive criticism.

10. The graduates reported they performed all the activities of all the nursing dimensions better after completing the degree program than they performed the activities before entering the degree program.

11. The dimensions with the highest mean of reported quality of activity performance before entering the degree program were Professional Development and IPR/Communication (Table 4.15).

12. The dimensions with the highest mean of reported quality of activity performance after completing the degree program were Professional Development and IPR/Communication (Table 4.15).

13. The dimensions with the greatest difference between reported performance before entering the degree program and after completing the degree program as indicated by the t-values in Table 4.16 were Teaching/Collaboration, IPR/Communications, and Professional Development.

Table 4.15

Graduates: Mean of reported quality of performance* of nursing activities

Activity Scale	Performance Before N	Performance Before Degree $\bar{X}$	Performance After N	Performance After Degree $\bar{X}$
Leadership	30	2.72	30	3.19
Teaching/Collaboration	31	2.28	31	3.12
Planning/Evaluation	31	2.59	31	3.15
IPR/Communication	31	2.86	31	3.26
Professional Development	31	2.90	31	3.34

* Quality of performance rating scale.
1. Not very well
2. Satisfactory
3. Well
4. Very well

Table 4.16

Graduates: Difference in reported performance* of nursing activities

Activity Scale	Performance Before Degree $\bar{X}$	Performance After Degree $\bar{X}$	t
Leadership	2.72	3.19	-4.44
Teaching/Collaboration	2.28	3.12	-8.09
Planning/Evaluation	2.59	3.15	-4.72
IPR/Communication	2.86	3.26	-6.82
Professional Development	2.90	3.34	-6.70

* Quality of performance rating scale.
1. Not very well
2. Satisfactory
3. Well
4. Very well

Summary of Graduates' Reported Quality of Performance of Nursing Activities.

The graduates of the post-R.N. program reported they performed all the activities in the five nursing dimensions better after completing the degree than they did before entering the degree program. The nursing dimensions in which the graduates reported they

performed best, both before entering the degree program and after completing the degree program, were IPR/Communications and Professional Development. The nursing dimensions in which the graduates showed the most improvement, after completing the degree program, were Teaching/Collaboration, IPR/Communications and Professional Development.

Similarities and Differences in the Reports of the Special Students and the Graduates of How Frequently and How Well They Perform Nursing Activities

The findings reported above indicate a number of similarities between the self-reports of the special students and the graduates before entering the degree program about how frequently they performed nursing activities. Both groups performed most of the activities "occasionally" or more often. Again, this finding indicates the two groups were similar for purposes of comparison.

Some slight differences did exist. The graduates indicated more Teaching/Collaboration activities that were performed less often than "occasionally" than did the special students. This could be the result of perceptions in retrospect.

The graduates indicated that they performed all the activities in all the nursing dimensions more often after completing the degree program than they performed those activities before entering the degree program. One assumes this change was influenced somewhat by the program itself. Another influencing factor may be that most of the graduates changed positions after obtaining the degree. The new position may demand that these activities be performed more often. One

must also be aware of the retrospective influence. The graduates could now be more aware of some activities which they had previously performed infrequently.

Some interesting findings emerged with respect to the reports of the special students and the graduates of how well they performed the nursing activities. The special students reported they performed all the activities better than "satisfactorily". They reported a number of activities (18 of the 45) to be performed better than "well". These activities were mostly in the dimensions of IPR/Communications and Professional Development. In contrast, the graduates report of their performance before entering the degree program indicated they performed only 8 of 45 activities better than well. These activities were also in the dimensions of IPR/Communications and Professional Development. However, the graduates indicated three activities in the dimension of Teaching/Collaboration which they did not perform "satisfactorily" before entering the degree program. A pattern of awareness about frequency and quality of performance of Teaching/Collaboration activities begins to emerge. The same two activities were reported as being performed less frequently and less well by the graduates both before entering the degree program and after graduation. These items related to the use of innovative teaching methods, and communicating in writing to patients and families.

The reports of the graduates after completing the degree program of how well they performed the activities indicated an improvement in the performance of all the activities. Some activities still were reported to be performed less than "well". These items related to:

the use of innovative teaching methods; communicate in writing to patients and families; include anticipated changes in care plans, initiate planning and evaluation of care plans with others; assist patient to communicate with others; knowledge of legal aspects of nursing; and use of constructive criticism. Again, the graduates could be indicating, in retrospect, an increased awareness of how much better they could have performed these activities before entering the degree program, and also increased expectations of self-performance.

Summary of Reported Performance of Nursing Activities by Special Students and Graduates

The findings about how frequently and how well the special students and the graduates reported they performed selected activities in the nursing dimensions of Leadership, Teaching/Collaboration, Planning/Evaluation, IPR/Communications, and Professional Development were analyzed and discussed.

Both groups reported they performed most activities more often than "occasionally". Both groups reported they performed most activities better than "satisfactorily". The graduates reported they performed the activities better after completing the degree than they had performed the activities before entering the degree program.

In the next section the question of "how much better" one group reported their performance to be before they entered the degree program than the other group is addressed.

Problem 3

Problem 3 was stated as follows:

> Are there statistically significant differences in the self-reports of how well they perform selected nursing activities between nurses awaiting entry to a Post-R.N. program and graduates before they entered the program?

Significant Differences Between the Self-Reports of Nursing Activity Performance of the Special Students and Graduates Before Entering the Degree Program

In this section the results of the data analysis are reported and the findings about the reported differences of activity performance between the special students and the gradautes before entering the degree program are discussed.

Findings

The t-test comparison of responses of the special students and the graduates before entering the degree program to questions of how well they performed the nursing activities related to Leadership, Teaching/Collaboration, Planning/Evaluation, IPR/Communication, and Professional Development is shown in Table 4.17a. The major findings were as follows:

1. No statistically significant difference existed between the special students and the graduates before entering the degree program in the performance of activities in the nursing dimensions of Leadership, Planning/Evaluation, IPR/Communications, and Professional Development.

Table 4.17a

Comparison of self-reports of performance on activity scales of special students in current job and graduates before entering the program.

Activity Scale	Performance: Special Students N	X	sd	Graduates Before N	X	sd	t	df	p
Leadership	33	2.90	0.58	30	2.72	0.68	-1.18	61	0.241
Teaching/Collaboration	32	2.79	0.71	31	2.28	0.61	-3.02	61	0.004*
Planning/Evaluation	33	2.80	0.68	31	2.59	0.66	-1.26	62	0.213
IPR/Communications	33	3.10	0.52	31	2.86	0.50	-1.89	62	0.063
Professional Development	31	3.14	0.57	31	2.90	0.56	-1.69	60	0.096

The items on all the scales had a maximum rating of 4 and a minimum rating of 1.

*t-test $p < .01$

2. The two groups differed significantly in the reported performance of Teaching/Collaboration activities. The special students reported they performed these activities significantly better than did the graduates before entering the degree program.

Discussion of findings

The two groups reported similar performance ratings on all but one nursing dimension, that being Teaching/Collaboration. It is quite possible that two factors could account for the difference. One, the graduates were responding from a retrospective position. Two, the graduates realized, after completing the degree, how much better they now perform the activities in the dimension of Teaching/Collaboration (as indicated in Table 4.16).

Summary

There was a statistically significant difference in the self-reports of how well the special students and the graduates, before entering the program, performed activities in the nursing dimension of Teaching/Collaboration. The special students reported they performed these activities significantly better than did the graduates before the degree program.

Problem 4

Problem 4 was stated as follows:

Are there statistically significant differences in the self-reports of how well they perform selected nursing activities between nurses awaiting entry to a Post-R.N. program and graduates after completing the program?

Significant Differences Between the Self-Reports of Nursing Activity Performance of the Special Students and Graduates After Completing the Degree Program

In this section the results of the data analysis are reported and the findings about the reported differences of activity performance between the special students and the graduates after completing the program, are discussed.

Findings

The t-test comparison of responses of the graduates is shown in Table 4.17b. The major findings were as follows:

1. The graduates, after completing the degree reported they performed activities in the nursing dimensions of leadership, teaching/collaboration, and planning/evaluation significantly better than the special students.

2. There was no significant difference between the performance of the two groups in the nursing dimensions of IPR/Communication and Professional Development.

Discussion of findings

The findings indicate that the reported performance of the graduates was significantly better than the reported performance of the special students. This improvement could be attributed to the effects of the program.

Summary

There was a statistically significant difference between the self-reports of the special students and the graduates of how well they

Table 4.17b

Comparison of self-reports of performance on activity scales of special students in current job and graduates after completing the program.

Activity Scale	Performance: Special Students N	X	sd	Graduates After N	X	sd	t	df	p
Leadership	33	2.90	0.58	31	3.20	0.48	2.22	62	0.030*
Teaching/Collaboration	32	2.79	0.71	31	3.12	0.53	2.13	61	0.037*
Planning/Evaluation	33	2.80	0.68	31	3.15	0.47	2.41	56.92	0.019*
IPR/Communications	33	3.10	0.52	31	3.26	0.46	1.26	62	0.211
Professional Development	31	3.14	0.57	31	3.34	0.44	1.53	60	0.132

The items on all the scales had a maximum rating of 4 and a minimum rating of 1.

*t-test $p < .05$

performed activities in the nursing dimensions. The graduates reported they performed activities in the nursing dimensions of leadership, teaching/collaboration, and planning/evaluation significantly better than the special students.

Problem 5

Problem 5 was stated as follows:

> Are there statistically significant differences between the self-reports of how well the graduates of a Post R.N. program performed selected nursing activities before entering the Post R.N. program and how well they perform those activities after graduating from the program?

Significant Difference in the Self-Reports of Graduates' Nursing Activity Performance Before Entering the Degree Program and After Completing the Program

In this section the results of data analysis are reported and the findings about the reported differences of activity performance between the graduates before entering the program and after completing the program, are discussed.

Findings

The t-test comparision of responses of the graduates is shown in Table 4.18. The major findings were as follows:

1. The graduates reported they performed activities in all the nursing dimensions of Leadership, Teaching/Collaboration, Planning/Evaluation, IPR/Communication, and Professional Development significantly better after completing the degree than before they entered the degree program.

Table 4.18

Graduates: Comparison of self-reports of performance on activity scales before entering the degree program and after completing the degree program.

Activity Scale	Performance Before $\bar{X}$	sd	After $\bar{X}$	sd	t	df	p
Leadership (N = 30)	2.72	0.68	3.19	0.49	-4.44	29	0.000*
Teaching/Collaboration (N = 31)	2.28	0.61	3.12	0.53	-8.09	30	0.000*
Planning/Evaluation (N = 31)	2.59	0.66	3.15	0.47	-4.72	30	0.000*
IPR/Communications (N = 31)	2.86	0.50	3.26	0.46	-6.82	30	0.000*
Professional Development (N = 31)	2.90	0.56	3.34	0.44	-6.70	30	0.000*

The items on all the scales had a maximum rating of 4 and a minimum rating of 1.

*Correlated t-test $p < .001$

2. The dimensions of greatest improvement were Teaching/Collaboration followed by IPR/Communications and Professional Development (as indicated by the t-values).

3. The dimensions of least improvement were Leadership and Planning/Evaluation (as indicaed by the t-values).

4. The two dimensions which the graduates reported they performed best both before and after completing the degree were IPR/Communications and Professional Development (as indicated by the values of the mean)..

Discussion of Findings

The findings indicate that for some reason the performance of the graduates improved most, after completing the degree, in the dimensions of Teaching/Collaboration and IRP/Communications. This change could be attributed to the influence of the program. It would be naive to assume that the program accounted for all the improvement. The phenomena of perceptions in retrospect could also have an influence, although the graduates' performance after completing the degree was also significantly improved from that of the special students'. Another factor to be considered is that the impact of the change in position of most of the graduates may have forced them into a situation where they were required to perform those activities at a higher level than they did as a staff nurse.

Summary

There was a statistically significant difference in the self-reports of how well the graduates performed activities in the nursing dimensions of Leadership, Teaching/Collaboration,

Planning/Evaluation, IPR/Communications and Professional Development, before entering the degree program and after graduating from the program. The graduates reported they performed activities in all the nursing dimensions significantly better after completing the degree program.

Problem 6

Problem 6 was stated as follows:

> Are there statistically significant relationships between the selected characteristics and how well nurses awaiting entry to a Post R.N. program report they perform selected nursing activities?

Significant Relationships Between Selected Characteristics and Reported Performance by the Special Students of Activities in the Selected Nursing Dimensions.

In this section the results of data analysis are reported and the findings about the relationships between selected characteristics and reported performance of the special students are discussed.

Findings

The t-test and ANOVA comparison of responses of the special students to questions about their characteristics and performance of nursing activities is shown in the summary Table 4.19.

The multiple regression analysis to determine which variables accounted for most of the variance and could be predictors of

Table 4.19

Summary Table
Special Students: Comparison of reported performance on activity scale by the characteristics

Characteristics	Activity Scale				
	Leadership	Teaching/ Collaboration	Planning/ Evaluation	IPR/ Communication	Professional Development
Age	-	-	-	-	-
Marital Status	-	-	-	-	-
Number of Children	-	-	-	-	-
Type of basic nursing program	-	-	-	-	-
Effective basic program	-	-	-	-	*[1]
Plan to complete the degree	-	-	*[2]	-	-
Major outcome of a degree	-	-	-	-	-
Years of Experience	-	-	**[3]	**[3]	-
Title of position	-	-	-	-	-

- no significance
* t-test significant $p < 0.05$
** ANOVA significant $p < .01$
1 See Table 4.20
2 See Table 4.21
3 See Table 4.22

successful nursing performance in the five nursing dimensions, is shown in summary Table 4.23.

Variable Relationships

The t-test and ANOVA comparison of special student characteristics and reported performance is shown in summary Table 4.19. The major findings were as follows:

1. No statistically significant differences existed between the special student characteristics of: age, marital status, number of children, type of basic nursing program, expected major outcome of obtaining a degree and title of position; and how well they reported they performed the activities in the five nursing dimensions.

2. No statistically significant differences existed between any of the special student characteristics and the nursing dimensions of Leadership and Teaching/Collaboration.

3. Table 4.20 indicates a statistically significant difference existed between how effective the special students thought their basic nursing program had been and the performance of Professional Development activities. Those who thought the program had been effective reported they performed the Professional Development activities significantly better than those students who thought the basic program was not effective.

4. Table 4.21 indicates a statistically significant difference existed between whether the student planned to complete the degree program and the reported performance of Planning/Evaluation activities. Those who planned to complete the degree reported they performed the Planning/Evaluation activities significantly better than those students who did not plan to complete the degree.

5. Table 4.22 indicates a statistically significant difference existed between how many years of experience the special students had and the reported performance of Planning/Evaluation activities.

Table 4.20

Special Students: Comparison of self-reports of performance on activity scales, by effectiveness of basic program.

Activity Scale	Effective Basic Program: Yes $\bar{X}$	Yes sd	No $\bar{X}$	No sd	Total t	Total df	Total p
Leadership (N = 33) Performance	2.99	0.59	2.76	0.56	1.10	31	0.279
Teaching/Collaboration (N = 32) Performance	2.92	0.64	2.56	0.79	1.40	30	0.173
Planning/Evaluation (N = 33) Performance	2.94	0.67	2.55	0.65	1.59	31	0.123
IPR/Communication (N = 33) Performance	3.21	0.51	2.92	0.52	1.53	31	0.136
Professional Development (N = 31)	3.30	0.50	2.86	0.60	2.20	29	0.036*

The items on all the scales had a maximum rating of 4 and a minimum rating of 1.

*t-test $p < 0.05$

Table 4.21

Special Students: Comparison of self-reports of performance on activity scales, by planning to complete the degree..

Activity Scale	Planning to Complete the Degree: Yes $\bar{X}$	Yes sd	No $\bar{X}$	No sd	t	df	p
Leadership (N = 32) Performance	2.98	0.61	2.55	0.37	1.64	30	0.111
Teaching/Collaboration (N = 31) Performance	2.81	0.76	2.67	0.57	0.44	29	0.661
Planning/Evaluation (N = 32) Performance	2.91	0.64	2.27	0.70	2.17	30	0.038*
IPR/Communication (N = 32) Performance	3.16	0.55	2.87	0.42	1.21	30	0.236
Professional Development (N = 31) Performance	3.20	0.57	2.92	0.54	1.09	29	0.284

The items on all the scales had a maximum rating of 4 and a minimum rating of 1.

*t-test $p < 0.05$

Table 4.22

Special Students: Comparison of self-reports of performance on activity scales, by years of experience.

Activity Scale	Years of Experience: Group 2 3-5 years $\bar{X}$	sd	Group 3 6-10 years $\bar{X}$	sd	Group 4 11+ years $\bar{X}$	sd	F	p	Comparison
Leadership (N = 33) Performance	2.63	0.34	2.80	0.50	3.06	0.65	2.478	0.081	
Teaching/Collaboration (N = 32) Performance	2.54	0.42	2.49	0.81	3.07	0.57	3.176	0.040	
Planning/Evaluation (N = 33) Performance	2.53	0.38	2.48	0.70	3.14	0.56	4.505	0.0103*	Group 4 > Group 3
IPR/Communications (N = 33) Performance	2.83	0.30	2.85	0.49	3.41	0.43	5.901	0.003*	Group 4 > Group 3 Group 4 > Group 2
Professional Development (N = 31) Performance	2.96	0.44	2.99	0.59	3.35	0.54	2.006	0.137	

The items on all the scales had a maximum rating of 4 and a minimum rating of 1.

* ANOVA SCHEFFE PROCEDURE $p < 0.01$

Those students with more than eleven years of experience reported they performed the Planning/Evaluation activities better than those students who had six to ten years of nursing experience.

6. Table 4.22 indicates a statistically significant difference existed between how many years of experience the special students had and the reported performance of IPR/Communication activities. Those students with more than eleven years of experience reported they performed the IPR/Communication activities better than both those with six to ten years and three to five years of experience.

Discussion of Findings

It cannot be determined from the data why the special students reported that only two of the five nursing dimensions, those of Planning/Evaluation and IPR/Communication, resulted in better performance after years of experience. The data do not indicate that the variable of years of experience results in a reported improvement in performance in all the nursing dimensions.

Performance Variance of the Special Students Accounted for by the Variables.

The variables were subjected to step-wise multiple regression to determine which variables accounted for the variance in the reported performance of activities in the five nursing dimensions. The results are shown in summary Table 4.23 and the regression analysis appears in Appendix E. The major findings were noted as follows:

1. A significant relationship between the variables and nursing performance showed up in only two nursing performance dimensions: Planning/Evaluation and Professional Development.

Table 4.23

Summary Table

Special Students: Nursing Performance Dimensions with a Significant Amount of Variance * Accounted for by the Variables.

Activity Scale	Significant Variables
Leadership	No
Teaching/Collaboration	No
Planning/Evaluation	Yes[1]
IPR/Communications	No
Professional Development	Yes[2]

* Step-wise multiple regression.

[1] Four variables significant $p < .05$
See Table 4.24

[2] Three variables significant $p < .05$
See Table 4.25

2. Table 4.24 indicates that 42% of the variance in the performance of activities in the nursing dimension of Planning/Evaluation could be accounted for by four variables. These variables were: effectiveness of the basic program, plans to complete a degree, years of nursing experience, and number of children. Table 4.24 indicates that the special students reported they performed the Planning/Evaluation activities significantly better if they:

   a. thought the basic program was effective;
   b. planned to complete the degree;
   c. had more years of nursing experience;
   d. had fewer children.

3. Table 4.25 indicates that 38% of the variance reported in the performance of activities in the nursing dimension of Professional Development could be accounted for by three variables. These variables were: effectiveness of basic program, courses are pre-requisites, and the mean R.N. score. Table 4.25 indicates that the special students reported they performed the Professional Development activities significantly better if they:

   a. thought the basic program was effective;
   b. were not required to take pre-requisite course in order to enter the degree program;
   c. scored lower on their R.N. exams.

Discussion of Findings

The proportion of variance which could be accounted for by the variables was significant in two of the five nursing dimensions. An effective basic program accounted for 19% (Table 4.24) of the variance in reports of the performance of the planning activities and 24% (Table 4.25) of the variance in reports of the performance of the Professional Development activities. It seems reasonable that special students who were performing well would think their basic program had been effective.

Table 4.24

Special Students: Proportion of variance * predicted in the self-reports of performance of Planning/Evaluation activities for the selected variables.

Predictors[1]	R^2	Simple R
Effective Basic Program	0.188	-0.434
Plan to complete degree	0.319	-0.412
Years Nursing Experience	0.359	0.241
Number of Children	0.417	-0.066

* Step-wise multiple regression.

[1] $p < .05$

Table 4.25

Special Students: Proportion of variance* predicted in the self-reports of performance of Professional Development activities for the selected variables.

Predictor[1]	R^2	Simple R
Effective Basic Program	0.241	-0.491
Courses are prerequisite	0.352	0.365
Mean R.N. score	0.377	-0.052

* Step-wise multiple regression.

[1] $p < .05$

One finding was not so clear. Those special students with a lower mean R.N. score reported they performed better than those with a high mean R.N. score. In an attempt to explain this finding the data were subjected to ANOVA, dividing the R.N. scores into three groups: below 500, between 500 and 599, and over 600. Results revealed that those students scoring 500-599 reported their performance of a number of the activities to be significantly better than those scoring below 500 and better than those scoring over 600.

Summary of Findings About the Significant Relationships Between Selected Characteristics and Reported Performance of Activities in the Nursing Dimensions of the Special Students

A number of significant relationships did appear. Students who thought their basic program had been effective reported significantly better performance of the Professional Development activities. Students who planned to complete their degree reported significantly better performance of the Planning/Evaluation activities. Students who had more than eleven years of nursing experience reported significantly better performance of both the IPR/Communications and the Planning/Evaluation activities.

The variance of performance was accounted for in only two of the nursing dimensions. Four variables accounted for 42% of the variance in the nursing dimension of Planning/Evaluation. These variables were: effectiveness of basic program, plans to complete the degree, years of experience, and number of children. Three variables accounted for 38% of the variance in the nursing dimension of Professional

Development. These variables were: effectiveness of the basic program, required pre-requisite courses and the mean R.N. score.

It appears that if the special students thought their basic program had been an effective one, they reported better performance of activities in these two nursing dimensions.

Problem 7

Problem 7 was stated as follows:

> Are there statistically significant relationships between the selected characteristics and how well graduates of a Post R.N. program report they perform selected nursing activities?

Significant Relationships Between Selected Characteristics and Reported Performance by the Graduates, of Activities in the Selected Nursing Dimensions

In this section the results of the data analysis are reported and the findings about the relationships between selected characteristics and reported performance of the graduates both before entering the degree program (reported in retrospect) and after completing the program are discussed.

Findings

The findings of the t-test and ANOVA comparison of responses of the graduates to questions about their characteristics and performance of nursing activities are shown in the summary Table 4.26. The findings of the multiple regression analysis to determine which

variables accounted for most of the variance and could be predictors of successful nursing performance in the five nursing dimensions are shown in summary Tables 4.31 and 4.34.

Variable Relationships

The findings of the t-test and ANOVA comparison of the graduate characteristics and reported performance, before entering the degree program and after graduating from the program, are shown in summary Table 4.26. The major findings were as follows:

1. No statistically significant differences existed between the graduates characteristics of: age, marital status, number of children, type of basic program, effectiveness of basic program, years of experience, title of position after degree, and obtain job expected after degree; and how well they reported they performed the activities in the five nursing dimensions both before entering the degree program and after graduating from the program.

2. No statistically significant differences existed between the graduates characteristics and their reported performance of the activities in the nursing dimensions of Leadership before the degree, Planning/Evaluation before the degree, IPR/Communication both before and after the degree, and Professional Development before the degree.

3. Table 4.27 indicates that a statistically significant difference existed between the title of position the graduate held before entering the degree program and how effective they reported they performed Teaching/Collaboration activities, before entering the degree program. Those who held positions other than staff nurse reported they performed significantly better than those who held positions of staff nurse.

4. Table 4.28 indicates that a statistically significant difference existed between whether the graduates thought they could function without a degree in the position they held since graduation, and reported performance in both Leadership and

Table 4.26

Summary Table

Graduates: Comparison of reported performance on activity scale before entering the degree program and after graduating from the program, by the characteristics.

Characteristics	Activity Scale									
	Leadership		Teaching/ Collaboration		Planning/ Evaluation		IPR/ Communication		Professional Development	
	Before	After	Before	After	Before	After	Before	After	Before	After
Age	-	-	-	-	-	-	-	-	-	-
Marital Status	-	-	-	-	-	-	-	-	-	-
Number of Children	-	-	-	-	-	-	-	-	-	-
Type of basic program	-	-	-	-	-	-	-	-	-	-
Effective basic program	-	-	-	-	-	-	-	-	-	-
Years of Experience	-	-	-	-	-	-	-	-	-	-
Title of position before	-		*[1]		-		-		-	
Title of position after		-		-		-		-		-
Function without a degree		*[2]		*[2]		-		-		-
Effective Post-R.N. program		-		*[3]		*[3]		-		*[3]
Obtained Expected Job After Degree		-		-		-		-		-
Major Outcome of a degree		**[4]		**[4]		**[4]		-		-

- no significance
* t-test significant $p < 0.05$
** ANOVA significant $p < .01$

1 See Table 4.27
2 See Table 4.28
3 See Table 4.29
4 See Table 4.30

Table 4.27

Graduates: Comparison of self-reports of performance on activity scales before entering degree program, by title of position before entering degree program.

Activity Scale	Title of Position Before Degree: Staff Nurse $\bar{X}$	Staff Nurse sd	Other $\bar{X}$	Other sd	t	df	p
Leadership (N = 30) Performance before	2.65	0.55	2.94	1.01	-0.75	7.13	0.478
Teaching/Collaboration (N = 31) Performance before	2.15	0.55	2.67	0.64	-2.19	29	0.037*
Planning/Evaluation (N = 31) Performance before	2.54	0.57	2.73	0.93	-0.71	29	0.482
IPR/Communication (N = 31) Performance before	2.85	0.46	2.88	0.64	-0.12	29	0.906
Professional Development (N = 31) Performance before	2.86	0.51	3.03	0.74	-0.75	29	0.461

The items on all the scales had a maximum rating of 4 and a minimum rating of 1.

* t-test $p < 0.05$

Table 4.28

Graduates: Comparison of self-reports of performance on activity scales after completing the degree program, by effective job functioning without degree

Activity Scale	Effective Job Functioning Without Degree: Yes $\bar{X}$	sd	No $\bar{X}$	sd	t	df	p
Leadership (N = 30) Performance after	2.91	0.51	3.28	0.41	-2.13	28	0.042*
Teaching/Collaboration (N = 30) Performance after	2.72	0.53	3.27	0.45	-2.93	28	0.007**
Planning/Evaluation (N = 30) Performance after	2.92	0.56	3.22	0.40	-1.64	28	0.113
IPR/Communication (N = 30) Performance after	3.05	0.61	3.33	0.38	-1.53	28	0.137
Professional Development (N = 30) Performance after	3.14	0.53	3.40	0.38	-1.55	28	0.133

The items on all the scales had a maximum rating of 4 and a minimum rating of 1.

* t-test, $p < 0.05$
** t-test, $p < 0.01$

Teaching/Collaboration activities. Those who needed the degree to function in the present position reported they performed the activities of both Leadership and Teaching/Collaboration significantly better than those who felt they did not need the degree for the present job.

5. Table 4.29 indicates that a statistically significant difference existed between how effective the graduates thought the Post R.N. program had been and the reported performance of the Teaching/Collaboration, Planning/Evaluation, and Professional Development activities. Those who thought the Post R.N. program had effectively prepared them to function in the position they now held reported they performed the Teaching/Collaboration, Planning/Evaluation and Professional Development activities significantly better than those graduates who thought the program had not prepared them adequately.

6. Table 4.30 indicates that a statistically significant difference existed between what the graduates thought were the major outcomes of obtaining the degree and the reported performance of the Leadership, Teaching/Collaboration, and Planning/Evaluation activities. Those graduates who thought the degree had resulted in "more satisfying work" reported they performed the Leadership, Teaching/Collaboration, and Planning/Evaluation activities significantly better than those graduates who had obtained a degree to change their field of work.
In addition, those graduates who obtained a degree for "personal satisfaction" also reported they performed the Planning/Evaluation activities better than those graduates who obtained a degree "to change their field of work".

Discussion of Findings

Experience in a position other than staff nurse prior to entering the degree program seemed to result in the graduates reporting better performance of Teaching/Collaboration activities in the position they held before entering the degree program. In addition, the possession of a degree seemed important in the performance of the

Table 4.29

Graduates: Comparison of self-reports of performance on activity scales after completing the degree, by effectiveness of the Post-R.N. program.

Activity Scale	Effective Post-R.N. Program: Yes $\bar{X}$	sd	No $\bar{X}$	sd	t	df	p
Leadership (N = 29) Performance after	3.29	0.31	2.73	0.72	1.85	5.49	0.123
Teaching/Collaboration (N = 29) Performance after	3.24	0.45	2.65	0.63	2.63	27	0.014*
Planning/Evaluation (N = 29) Performance after	3.27	0.36	2.61	0.50	3.71	27	0.001**
IPR/Communication (N = 29) Performance after	3.38	0.35	2.83	0.62	2.08	5.83	0.083
Professional Development (N = 29) Performance after	3.45	0.34	2.94	0.55	2.84	27	0.009***

The items on all the scales had a maximum rating of 4 and a minimum rating of 1.

* t-test, $p < 0.05$
** t-test, $p < 0.001$
*** t-test, $p < 0.01$

Table 4.30

Graduates: Comparison of self-reports of performance on activity scales after completing the degree, by major outcome of obtaining a degree.

Activity Scale	Major Outcome of Degree: Group 1 Improved Working Conditions X̄	sd	Group 3 More Satisfying Work X̄	sd	Group 4 Change Work X̄	sd	Group 5 Personal Satisfaction X̄	sd	F	p	Comparisons
Leadership (N = 29) Performance After	3.10	0.17	3.40	0.38	2.75	0.48	3.27	0.31	4.948	0.008*	Group 3 > Group 4
Teaching/Collaboration (N = 29) Performance After	2.86	0.38	3.36	0.47	2.76	0.54	3.30	0.45	3.221	0.039**	Group 3 > Group 4
Planning/Evaluation (N = 29) Performance After	3.07	0.15	3.44	0.38	2.63	0.38	3.24	0.30	9.214	0.000***	Group 3 > Group 4 Group 5 > Group 4
IPR/Communications (N = 29) Performance After	3.15	0.44	3.41	0.43	2.94	0.46	3.39	0.17	2.144	0.120	
Professional Development (N = 29) Performance After	3.30	0.30	3.42	0.43	3.06	0.48	3.47	0.31	1.410	0.263	

The items on all the scales had a maximum rating of 4 and a minimum rating of 1.

* ANOVA
* SCHEFFE PROCEDURE $p < 0.01$
** SCHEFFE PROCEDURE $p < 0.05$
*** SCHEFFE PROCEDURE $p < 0.001$

leadership and Teaching/Collaboration activities in the job held after graduation. The finding that those graduates who thought the Post R.N. program was effective also reported better performance in the activities of Teaching/Collaboration, Planning/Evaluation and Professional Development seems to be a reasonable one. These areas may be the focal areas of the program. The findings about the major outcome of the degree compared with activities of best performance is interesting. It seems that those graduates who completed a degree "to obtain more satisfying work" or for "personal satisfaction" performed significantly better in a number of the nursing dimensions, particularly Leadership, Teaching/Collaboration and Planning/ Evaluation, than those who completed the degree "to change their field of work". This finding is of note for both educators and employers.

Performance Variance of the Graduates, Before Entering the Degree Program, Accounted for by the Variables

The variables were subjected to step-wise multiple regression to determine which variables accounted for the variance in the reported performance of the activities in the five nursing dimensions by the graduates before entering the degree program. The results are shown in the summary Table 4.31. The major findings were as follows:

1. A significant relationship between the variables and nursing performance showed up in only two nursing performance dimensions: Teaching/Collaboration and IPR/Communication.

2. Table 4.32 indicates that 53% of the variance in the performance of the activities in the nursing dimension of Teaching/Collaboration was accounted for by four variables. These variables were: the

Table 4.31

Summary Table

Graduates (before entering degree program): Nursing Performance Dimensions with a Significant Amount of Variance* Accounted for by the Variables.

Activity Scale	Significant Variables
Leadership	No
Teaching/Collaboration	Yes[1]
Planning/Evaluation	No
IPR/Communications	Yes[2]
Professional Development	No

* Step-wise multiple regression.

[1] One variable significant $p < 0.05$
See Table 4.32

[2] One variable significant $p < 0.05$
See Table 4.33

Table 4.32

Graduates: Proportion of variance* predicted in the self-reported performance of Teaching/Collaboration activities before entering the degree program for the selected variables.

Predictors[1]	R^2	Simple R
Mean R.N. score	0.218	-0.467
Years of nursing experience	0.365	0.432
Year of graduation from basic program	0.508	-0.274
Title of position before degree	0.530	0.323

* Step-wise multiple regression.
[1] $p<.05$

mean R.N. score, years of experience, year of graduation from basic program and title of position before the degree. Table 4.32 indicates that the graduates reported they performed the Teaching/Collaboration activities significantly better before entering the degree program if they:

a. scored lower on their R.N. exams;
b. had more years of nursing experience;
c. graduated longer ago from their basic program;
d. were other than staff nurses before entering the degree program.

3. Table 4.33 indicates that 25% of the variance in the performance of activities in the nursing dimension of IPR/Communication was accounted for by one variable. The variable was the mean R.N. score. Table 4.33 indicates that graduates who reported they performed the IPR/Communication activities significantly better before entering the degree program scored lower on their R.N. exams.

Discussion of Findings

The proportion of variance which could be accounted for by the variables was significant in only two of the five nursing dimensions. The mean R.N. score accounted for 22% (Table 4.32) of the variance in the performance of Teaching/Collaboration activities and 25% (Table 4.33) of the variance in the performance of the IPR/Communication activities. Again, the data were subjected to ANOVA and the results were similar to that of the special students. Those graduates scoring between 500-599 reported their performance of a number of the activities to be significantly better than those scoring below 500 and those scoring above 600.

Table 4.33

Graduates: Proportion of variance* predicted in the self-reported performance of IPR/Communication activities before entering the Post-R.N. program for the selected variables.

Predictors[1]	R^2	Simple R
Mean R.N. score	0.252	-0.502

* Step-wise multiple regression.

[1] $p < .05$

Performance Variance of the Graduates, After Graduating from the Degree Program, Accounted for by the Variables

The variables were subjected to step-wise multiple regression to determine which variables accounted for the variance in the reported performance of the activities in the five nursing dimensions by the graduates. The results are shown in the summary Table 4.34. The major findings were as follows:

1. A significant relationship between the variables and nursing performance showed up in four of the five nursing performance dimensions. These dimensions were: Leadership, Teaching/Collaboration, Planning/Evaluation and IPR/Communication.

2. No significant relationship was apparent between the performance of Professional Development activities and any of the variables.

3. Table 4.35 indicates that 53% of the variance in the performance of activities in the nursing dimension of Leadership was accounted for by four variables. These were: effective Post R.N. program, function effectively without a degree, mean R.N. score, and title of position before degree. Table 4.35 indicates that the graduates reported they performed the Leadership activities significantly better after graduating from the program if they:

   a. thought the Post R.N. program was effective;
   b. could not function as effectively in their position after graduation without a degree;
   c. scored lower on the R.N. exams;
   d. functioned as a staff nurse before entering the program.

4. Table 4.36 indicates that 88% of the variance in the performance of activities in the nursing dimension of Teaching/Collaboration was accounted for by ten variables. These were: function effectively without a degree, obtain expected position after degree, title of position after degree, mean R.N. score, G.P.A., type of basic program, title of position before degree, effective Post R.N. program and effective basic program. Table 4.36 indicates that the graduates reported they performed the

Table 4.34

Summary Table

Graduates (after graduating from degree program): Nursing Performance Dimensions with a Significant Amount of Variance* Accounted for by the Variables.

Activity Scale	Significant Variables
Leadership	Yes[1]
Teaching/Collaboration	Yes[2]
Planning/Evaluation	Yes[3]
IPR/Communications	Yes[4]
Professional Development	No

* Step-wise multiple regression.

[1] Four variables significant $p < 0.05$
See Table 4.35

[2] Ten variables significant $p < 0.05$
See Table 4.36

[3] Four variables significant $p < 0.05$
See Table 4.37

[4] Thirteen variables significant $p < 0.05$
See Table 4.38

Table 4.35

Graduates: Proportion of variance* predicted in the self-reported performance of Leadership activities after completing the degree program for the selected variables.

Predictors[1]	R^2	Simple R
Effective Post-R.N. program	0.263	-0.513
Function effectively without a degree	0.394	0.477
Mean R.N. score	0.496	-0.359
Title of position before degree	0.529	-0.208

* Step-wise multiple regression.
[1] $p < 0.05$

Table 4.36

Graduates: Proportion of variance* predicted in the self-reported performance of Teaching/Collaboration activities after completing the degree program for the selected variables.

Predictors[1]	R^2	Simple R
Function effectively without a degree	0.389	0.624
Obtain expected position after degree	0.514	-0.492
Title of position after degree	0.689	0.292
Mean R.N. score	0.714	-0.289
G.P.A.	0.739	0.312
Type of basic program	0.761	0.012
Years to complete basic program	0.790	-0.086
Title of position before degree	0.818	-0.111
Effective Post-R.N. program	0.870	-0.470
Effective basic program	0.880	-0.039

* Step-wise multiple regression.
[1] $p<.05$

Teaching/Collaboration activities significantly better after graduating from the program if they:

a. thought they could not function in their present position without a degree;
b. obtained the position they expected after graduation;
c. were functioning in positions other than staff nurse in their present position;
d. scored low on the R.N. exams;
e. obtained a high G.P.A.;
f. graduated from a two-year college basic program;
g. took less time to complete the program;
h. functioned as a staff nurse before entering the degree program;
i. thought the Post-R.N. program was effective
j. thought the basic program was effective.

5. Table 4.37 indicates that 53% of the variance in the performance of activities in the nursing dimension of Planning/Evaluation was accounted for by four variables. These were: effective basic program, number of children, mean R.N. score, and type of basic program. Table 4.37 indicates that the graduates reported they performed the Planning/Evaluation activities significantly better after graduating from the program if they:

a. thought their Post-R.N. program was effective;
b. had few or no children;
c. scored low on the R.N. exams;
d. graduated from a two-year college basic program.

6. Table 4.38 indicates that 98% of the variance in the performance of the activities in the nursing dimension of IPR/Communication was accounted for by thirteen variables. These were: obtained expected position after degree, effective Post R.N. program, mean R.N. score, title of position after degree, years of nursing experience, number of children, year of graduation from basic program, title of position before degree, years to complete the program, type of basic program, effective functioning without a degree, required pre-requisite courses, and effective basic program.

Table 4.38 indicates that the graduates reported they performed the IPR/Communication activities significantly better after graduating from the program if they:

Table 4.37

Graduates: Proportion of variance* predicted in the self-reported performance of Planning/Evaluation activities after completing the degree program for the selected variables.

Predictors[1]	R^2	Simple R
Effective Post-R.N. program	0.291	-0.539
Number of children	0.488	-0.449
Mean R.N. score	0.535	-0.178
Type of basic program	0.533	0.220

* Step-wise multiple regression.
[1] $p < 0.05$

Table 4.38

Graduates: Proportion of variance* predicted in the self-reported performance of IPR/Communication activities after completing the degree program for the selected variables.

Predictors[1]	R^2	Simple R
Obtain expected position after degree	0.269	-0.519
Effective Post-R.N. program	0.471	-0.470
Mean R.N. score	0.555	-0.503
Title of position after degree	0.622	0.059
Years of Nursing experience	0.683	-0.067
Number of children	0.747	-0.245
Year of graduation from basic program	0.778	0.092
Type of position before degree	0.817	-0.215
Years to complete degree	0.876	-0.050
Type of basic program	0.911	-0.026
Effective functioning without degree	0.956	0.414
Courses are prerequisites	0.965	-0.269
Effective basic program	0.977	-0.131

* Step-wise multiple regression.
1 $p < 0.05$

a. obtained the position they expected after graduation;
b. thought the Post R.N. program was effective;
c. scored low on the R.N. exams;
d. functioned in positions other than staff nurse after graduating from the program;
e. had fewer years of nursing experience;
f. had few or no children;
g. graduated more recently from the basic program;
h. functioned as a staff nurse before entering the program;
i. took less time to complete the degree;
j. graduated from a three-year hospital basic program.
k. thought they could not function without a degree in their present position.
l. were required to take pre-requisite courses;
m. thought their basic program had been effective.

Discussion of Findings

The proportion of variance which could be accounted for by the variables was significant for four of the five nursing dimensions for the graduates. Only the dimension of Professional Development did not reveal any significant variables. The variable "effective Post R.N. program" was the strongest predictor in two of the five dimensions, accounting for 26% variance in the dimension of Leadership (Table 4.35) and 29% variance in the dimension of Planning/Evaluation (Table 4.37). It appeared as the second strongest predictor in the dimension of IPR/Communications, increasing the variance accounted for from 27% to 47% (Table 4.38). It seems reasonable that graduates who reported they performed well in the nursing dimensions would accredit that success to the Post R.N. program.

It is also to be noted that the variable "functions effectively in present position without a degree" was revealed to be a strong predictor of good performance in two of the nursing dimensions and

appeared significant in a third dimension. This variable was the second strongest predictor of Leadership performance, increasing the variance accounted for from 26% to 39% (Table 4.35), and the strongest predictor of Teaching/Collaboration performance, accounting for 39% of the variance (Table 4.36). The third nursing dimension was IPR/Communcation (Table 4.38). The graduates indicated they required a degree to do their present job.

One variable "mean R.N. score" appeared to be a strong negative predictor of performance in the four nursing dimensions. As previously mentioned, it appeared that the lower the graduates scored on the R.N. exams the better they reported their performance of the activities. Again the data were subjected to ANOVA and the same results appeared. Those graduates who scored 500-599 on the R.N. exams reported they performed significantly better than those who scored both lower and higher. This finding could have a number of implications for a program. One should not underestimate the performance of these 'mid-range scorers' and/or one should observe these performers closely to ascertain if in fact they perform as well as their self-reports indicate. One should also examine the performance of the high scorers on the exams. Do they in fact perform at a lower level or do they have high expectations which result in lower self-ratings of performance?

One other finding was interesting. There appeared to be no correlation between R.N. score and G.P.A. The data were treated with a Pearson's correlation and revealed a low relationship of $r=0.30$.

The nursing dimensions which revealed the greatest number of significant relationships between performance and the variables were

Teaching/Collaboration and IPR/Communication; 88% of performance variance was accounted for by the variables in the dimension of Teaching/Collaboration and 98% of performance variance was accounted for by the variables in the dimension of IPR/Communication. Caution must be exercised when explaining these findings. It should not be assumed that no other variables could affect performance. In actual fact, there is quite possibly an overlapping effect of the relationship of some of these variables on performance. Other variables which were not included in this study may have an effect on performance. It was encouraging, however, that four of the dimensions revealed some variables which appeared to be strong predictors for successful performance.

Summary of Findings About the Significant Relationships Between Selected Characteristics and Reported Performance by the Graduates of Activities in the Nursing Dimension

The findings indicated that the graduates were aware of the importance of the degree to their performance of activities in the nursing dimensions of Leadership and Teaching/Collaboration. The graduates who thought the Post R.N. program was effective reported better performance in all five dimensions.

Predictors of successful nursing performance by the graduates after completing the degree were revealed in four of the nursing dimensions: Leadership, Teaching/Collaboration, Planning/Evaluation, and IPR/Communication.

Summary of Data Analysis and Findings

Characteristics and performance of activities in five nursing dimensions of the special students and the graduates, both before entering the degree program and after graduating from the program, were examined. The two groups displayed similar characteristics indicating the two groups were compatible for comparison purposes.

The two groups differed in their self-reports of performance of the nursing activities. The special students reported they performed better than the graduates before entering the program. This difference was not significant and is best explained by the fact that the graduates were reporting in retrospect. The graduates, after completing the degree reported they performed significantly better than did the special students in the dimensions of Leadership, Teaching and Planning.

The graduates reported they performed all activities significantly better after completing the program than they did before. In the future, to eliminate the retrospective element, it is suggested that the performance measurements be obtained, in a longitudinal study, on the students before they enter the program and again in a follow-up study after graduation.

The data were subjected to multiple regression to determine if any variables revealed themselves as significant predictors of successful performance. Such significant predictors were determined for four of the five nursing dimensions. These were: Leadership, Teaching/Collaboration, Planning/Evaluation and IPR/Communication. The

strongest variables were: "the program was effective" and "the graduates could not function in their present position without a degree", particularly in the dimensions of Leadership, Teaching/ Collaboration, and IPR/Communication.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

This chapter includes the summary, conclusions and recommendations of the study. In the summary section of the chapter, the purpose, methodology, data analysis and findings are presented. The second section includes the conclusions derived from the findings. In the final section, the recommendations of the study findings are discussed.

Summary

The research literature suggests that differences exist in the quality of performance of nursing activities between graduates of diploma and baccalaureate programs. Some evidence suggests that baccalaureate graduates perform nursing activities better than do diploma graduates. The education and nursing community in Canada generally supports the suggestion that the minimum qualification to enter the practice of nursing be the baccalaureate degree. This suggestion continues to be met with some resistance both within the educational and nursing communities. Nurses who presently possess only a diploma seems particularly resistant to the suggested change. Post-R.N. programs provide one mechanism by which the diploma nurse can obtain the baccalaureate degree.

Purpose

The purpose of this study was to identify selected characteristics of registered nurses awaiting entry to a Post-R.N. baccalaureate program in Western Canada and those who graduated from such a program in 1981 and to compare their performance of activities in the five nursing dimensions of: leadership, teaching, planning, communications and professional development.

Problems

The following research questions were addressed in this study:

1. What are some selected demographic, academic, basic education, Post-R.N. education and nurse career behavior characteristics of nurses awaiting entry to the Post-R.N. Baccalaureate program and graduates of the program?

2. What are the self-reports of nurses awaiting entry to a Post-R.N. program and those who have graduated from the program of how frequently and how well they perform selected nursing activities?

3. Are there statistically significant differences in the self-reports of how well they perform selected nursing activities between nurses awaiting entry to a Post-R.N. program and graduates before they entered the program?

4. Are there statistically significant differences in the self-reports of how well they perform selected nursing activities between nurses awaiting entry to a Post-R.N. program and graduates after completing the program?

5. Are there statistically significant differences between the self-reports of how well the graduates of a Post-R.N. program performed selected nursing activities before entering the Post-R.N. program and how well they perform those activities after graduating from the program?

6. Are there statistically significant relationships between the selected characteristics and how well the nurses awaiting entry to a Post-R.N. program report they perform selected nursing activities?

7. Are there statistically significant relationships between the selected characteristics and how well graduates of a Post-R.N. program report they perform selected nursing activities?

Methodology

The design of the study was a Static-Group Comparison as described by Campbell and Stanley (1963). A theoretical approach was designed which described the factors that were considered while conducting this study and the blocking technique (Blalock 1966) that was employed to examine the variables.

A questionnaire, based on one developed by Schwirian (1978b), was used to collect the data about the characteristics and reported performance of the two groups of nurses. The nurses were asked to report how frequently and how well they performed 45 activities which comprised five dimensions of nursing performance: leadership, teaching, planning, communications, and professional development.

The questionnaire was tested for reliability and validity using Cronbach's alpha and factor analysis. The reliabilities for the performance dimensions ranged from a low of .85 for the leadership subscale to a high of .95 for the teaching subscale.

The questionnaire was mailed to the total population of 1981 graduates (44) and a random sample of nurses awaiting entry to the Post-R.N. program (55). Confidentiality was assured the respondents. Respondents were informed how to locate a copy of the completed study.

Data Analysis

The data obtained from the questionnaire was processed using the Statistical Package for the Social Sciences (Nie et al: 1975). The following analyses were used in this study:

1. Factor analysis, oblique rotation, was used to verify Schwirian's constructs.
2. Cronbach's alpha was used to measure the reliability of the five nursing dimension scales.
3. Frequency and percentage distribution was used to describe the data about the characteristics and performance of the nursing activities of the respondents.
4. Pearson's correlation coefficient was used to describe the relationship between respondents' R.N. scores and the G.P.A.

5. t-tests and ANOVA were used to examine differences in self-reports of respondents about their performance of nursing activities.

6. t-tests and ANOVA were used to examine the relationships between selected characteristics and the respondents reported performance of nursing activities

7. Step-wise multiple regression was used to determine which of the variables may be predictors of successful nursing performance.

8. Content analysis was used to analyze the open-ended responses.

Findings

Characteristics of Nurses Awaiting Entry to A Post-R.N. Program

The majority of the special students were female, 25 to 29 years of age; married with no children; scored between 500 and 550 on the R.N. exams; graduated from a hospital program in 1970 or later; thought their basic nursing program was an effective one; were taking prerequisite courses for entrance to the Post-R.N. program; planned to complete their degree; thought a degree would result in obtaining more satisfying work or allowing them to change their field of work; thought a degree was not necessary or necessary only in the areas of teaching, supervision or public health; were presently employed; had over six years of experience; and were staff nurses.

Characteristics of Graduates of A Post-R.N. Program

All the responding graduates were female. Most were: 25 - 29 years of age; had no children; scored over 500 on the R.N. exams;

achieved a G.P.A. of over 6.5; graduated from a hospital program in 1970 or later; took prerequisite courses for entrance to the Post-R.N. program; thought their Post-R.N. degree program was an effective one, obtained the position they expected upon completing the degree, thought the degree had allowed them to obtain more satisfying work or to change their field of work; thought that a degree was necessary; were employed and worked full-time positions as staff nurses, instructors, or community health nurses; and felt the degree was necessary to function in the position they now held.

Performance of Nursing Activities by Nurses Awaiting Entry to a Post-R.N. Program and Graduates of the Program

Both groups reported they performed most activities more often than "occasionally". Both groups reported they performed most activities better than "satisfactory". The graduates reported they performed the activities better after completing the degree than they had performed the activities before entering the degree program.

Differences In The Performance of Nursing Activities Between Nurses Awaiting Entry to a Post-R.N. Program And Graduates Before They Entered The Program

There was a statistically significant difference in the self-reports of how well the special students and the graduates, before entering the program, performed activities in the nursing dimension of teaching/collaboration. The special students reported they performed

these activities significantly better than did the graduates before they entered the degree program.

Differences In The Performance Of Nursing Activities Between Nurses Awaiting Entry To A Post-R.N. Program And Graduates Of The Program

There was a statistically significant difference between the self-reports of the special students and the graduates of how well they performed activities in the nursing dimensions. The graduates reported they performed activities in the nursing dimensions of leadership, teaching/collaboration, and planning/evaluation significantly better than did the special students.

Differences In The Performance of Nursing Activities Between Graduates Before They Entered The Post-R.N. Program And After Graduating From The Program

There was a statistically significant difference in the self-reports of how well the graduates performed activities in the nursing dimensions of leadership, teaching/collaboration, planning/evaluation, IPR/communications and professional development, before entering the degree program and after graduating from the program. The graduates reported they performed activities in all the nursing dimensions significantly better after completing the degree program.

Relationships Between Characteristics Of Nurses Awaiting Entry To A Post-R.N. Program And Performance

A number of significant relationships did appear. Students who thought their basic program had been effective reported significantly better performance of the professional development activities. Students who planned to complete their degree reported significantly better performance of the planning/evaluation activities. Students who had more than eleven years of nursing experience reported significantly better performance of both the IPR/communications and the planning/evaluation activities.

The variance of performance was accounted for in only two of the nursing dimensions. Four variables accounted for 42% of the variance in the nursing dimension of planning/evaluation. These variables were: effectiveness of basic program, plans to complete the degree, years of experience, and number of children. Three variables accounted for 38% of the variance in the nursing dimension of professional development. These variables were: effectiveness of the basic program, required pre-requisite courses and the mean R.N. score.

It appears that if the special students thought their basic program had been an effective one, they reported better performance of activities in these two nursing dimensions.

Relationships Between Characteristics Of The Graduates and Performance

Experience in a position other than staff nurse prior to entering the degree program seemed to result in the graduates reporting better

performance of teaching/collaboration activities in the position they held before entering the degree program. In addition, the possession of a degree seemed important in the performance of the leadership and teaching/collaboration activities in the job held after graduation. The finding that those graduates who thought the post R.N. program was effective also reported better performance in the activites of teaching/collaboration, planning/evaluation and professional development seems to be a reasonable one. These areas may be the focal areas of the program. The findings about the major outcome of the degree compared with activities of best performance is interesting. It seems that those graduates who completed a degree "to obtain more satisfying work" or "for personal satisfaction" performed significantly better in a number of the nursing dimensions, particularly leadership, teaching/collaboration and planning/evaluation, than those who completed the degree "to change their field of work".

The proportion of variance which could be accounted for by the variables was significant in only two of the five nursing dimensions as reported by the graduates before entering the program, in retrospect. The mean R.N. score was the strongest predictor of good performance of teaching/collaboration and IPR/communication activities. Those graduates scoring between 500-599 reported their performance of a number of the activities to be significantly better than those scoring below 500 and those scoring above 600.

The proportion of variance which could be accounted for by the variables was significant for four of the five nursing dimensions for the graduates after completing the program. Only the dimension of

professional development did not reveal any significant variables. The variable "effective Post R.N. program" was the strongest predictor in two of the five dimensions: leadership and planning/evaluation. It appeared as the second srongest predictor in the the dimension of IPR/communications.

The variable "functions effectively in present position without a degree" was revealed to be a strong predictor of good performance in two of the nursing dimensions and appeared significant in a third dimension. This variable was the second strongest predictor of leadership performance, and the strongest predictor of teaching/collaboration performance. The third nursing dimension was IPR/communication.

One variable "mean R.N. score" appeared to be a strong negative predictor of performance in the four nursing dimensions. As previously mentioned, it appeared that the lower the graduates scored on the R.N. exams the better they reported their performance of the activities. The data were subjected to ANOVA to explain these results. Those graduates who scored 500-599 on the R.N. exams reported they performed significantly better than those who scored both lower and higher. There appeared to be no correlation between R.N. scores and G.P.A. The data were treated with a Pearson's correlation and revealed a low relationship of $r=0.30$.

The nursing dimensions which revealed the greatest number of significant relationships between performance and the variables were teaching/collaboration and IPR/communication.

Conclusions

The following conclusions were based on the findings of the study:

1. The program was reportedly effective in improving the performance of the graduates in all the nursing dimensions, particularly in the dimensions of teaching/collaboration, IPR/communication, and professional development.

2. The graduates reportedly performed activities in the dimensions of leadership, teaching and planning significantly better than the nurses awaiting entry to the program.

3. The graduates reportedly required a degree to function in the positions they held since graduation.

4. Both the special students and the graduates reported their best performance in the dimensions of IPR/communications and professional development. Schwirian (1978b) reported that all nurses in her study rated themselves best at IPR/communication and leadership.

5. The graduates changed position titles after graduation from "staff nurse" to "instructor" or "community health nurse".

6. Predictors of successful nursing performance emerged for four of the five nursing dimensions, those being: leadership, teaching/

collaboration, planning/evaluation, and IPR/communication.

7. The special students expected that obtaining a degree would result in obtaining more satisfying work or changing their field of work. The graduates reported that indeed this was so.

8. The findings of this study are congruent with the findings of other studies. These baccalaureate graduates rated their performance significantly higher on all five nursing dimensions after completing the degree. In addition they rated themselves better than the nurses awaiting entry to the program when performing in the dimensions of leadership, teaching and planning. Schwirian (1978b) reported that the degree nurses rated themselves better in teaching and planning. It is to be emphasized that the graduates in this study were Post-R.N. baccalaureate graduates.

9. The Schwirian performance measuring instrument (with the critical care dimension omitted) was appropriate and reliable for application in this study.

10. The special students were an appropriate comparison group. The characteristics of the special students and the graduates of the program were similar.

Recommendations

This study used Schwirian's instrument (1978b) to measure the performance of Post-R.N. baccalaureate graduates in a follow-up comparative study. The data from this study provided significant findings; however, it is recognized that the study had some limitations in terms of generalizability. The following recommendations should therefore be considered within that context:

Recommendations for Further Studies:

1. Conduct a longitudinal study on the nurses rather than a retrospective study.

2. Conduct further research on the performance of "mid-range" and "high" scorers on exams to examine why "high" scorers rate themselves lower on performance.

3. Conduct further research on the motivation of registered nurses for seeking further education and how the findings may be used in educational and employment settings.

4. Conduct further research to examine how the performance of baccalaureate graduates might be improved beyond the diploma level in the dimensions of communication and professional development.

Recommendations for Administration:

1. Recognize program evaluation as an early, on-going and necessary component of program development.

2. Ensure that program evaluation is carried out.

3. Conduct follow-up interviews of a sample of the 1981 graduates to examine why some of the findings in this study may have occurred.

4. Conduct further studies to investigate what components of this Post-R.N. program contributed to successful performance.

5. Conduct further follow-up studies on future graduates of this Post-R.N. program to validate the pattern of item loading which may indicate the formation of new constructs.

6. Conduct further studies to derive more predictor variables for successful performance particularly in the dimension of professional development.

7. Continue to support the suggestion of a baccalaureate degree as the minimum requirement for entry to practice nursing.

BIBLIOGRAPHY

BIBLIOGRAPHY

Agnew, N. M., and S. N. Pyke. The Science Game: An Introduction to Research in the Behavioural Sciences. 2nd Ed. Princton, New Jersey: Prentice-Hall, 1978.

Alberta Association of Registered Nurses. Position Statement on Baccalaureate Education for Nurses. Edmonton: September 1979.

Allen, M. "Evaluative Research in Nursing Education." Nursing Papers, Vol. 1, April 1969.

Allen, M. Evaluation of Educational Programmes in Nursing. Geneva: World Health Organization, 1977.

Babbie, E. R. Survey Research Methods. Belmont, California: Wadsworth Publishing Co. 1973.

Bellack, A. A. and H. M. Kliebard (Editors). Curriculum and Evaluation. California: McCutchan Publishing Corp. 1977.

Bergman, R. "Evaluation of the Tel-Aviv University Post-Basic Baccalaureate Nursing Programme-II." International Journal of Nursing Studies, Vol. 10, 21-32, 1973.

Blalock, E.V. "Relationships Between Selected Factors in California Associate Degree Nursing Programs and Performance by their Graduates." Los Angeles: University of Southern California, 1966 (unpublished doctoral dissertation).

Block, D. "Evaluation of Nursing Care in Terms of Process and Outcome: Issues in Research and Quality Assurance." Nursing Research. Vol. 24, No. 4, 256-263, July - August 1975.

Brian, S. "The Bottom Line: Graduates and Careers." In Proceedings Researching Second Step Nursing Education, Vol. 1. Rohnert Park, California: First Annual Conference, National Second Step Project, Department of Nursing, Sonoma State University, 45-54, 1980.

Campbell, D. T., and J. C. Stanley. Experimental and Quasi-Experimental Designs for Research. Chicago: Rand McNally College Publishing Co., 1963.

Crawford, M. E., M. L. Harrison, and O. M. Larson. "Survey of Graduates of the University of Saskatchewan Basic Baccalaureate Program in Nursing." Saskatoon, Saskatchewan: University of Saskatchewan College of Nursing. 1974.

Cronbach, L. J. "Course Improvement Through Evaluation." Teachers College Record, 64, 672-683, 1963.

Cronbach, L. J. and Associates. Toward Reform of Program Evaluation. San Francisco: Jossey-Bass Publishers, 1981.

Dennis, L. C. and J. K. Janken. The Relationship Between Nursing Education and Performance: A Critical Review. Hyattsville, Maryland: U.S. Department of Health, Education, and Welfare. Public Health Service, Health Resources Administration, Bureau of Health Manpower, Division of Nursing, 1979.

Eisner, E. W. and E. Vallance (Editors). Conflicting Conceptions of Curriculum. California: McCutchan Publishing Corp., 1974.

Field, P.A. "A Follow-Up Study of Graduates From the Four Year B.Sc. Program in Nursing, University of Alberta." Edmonton, Alberta: Unpublished report by the University of Alberta, Faculty of Nursing, May 1978.

Goldstein, J. O. "Comparison of Graduating AD and Baccalaureate Nursing Students' Characteristics." Nursing Research. Vol. 29, No. 1, 46-49, January-February 1980.

Government of Alberta. Registered Nurses' Act. Royal Statutes of Alberta. Edmonton, Alberta: Queen's Printer, 1955.

Government of Alberta. Position Paper on Nursing Education: Principles and Issues. Edmonton, Alberta: Department of Advanced Education and Manpower, 1977.

Government of Alberta. Summary of Responses to the Alberta Task Force on Nursing Education. Edmonton, Alberta: Alberta Department of Advanced Education and Manpower, 1978.

Government of Alberta. The Report of the Alberta Task Force on Nursing Education. Edmonton, Alberta: Department of Advanced Education and Manpower, 1975.

Hayes, P., and J. Ford. "Preliminary Findings from a Study of the Post-Basic Degree Nursing Students at the University of Alberta Faculty of Nursing." Edmonton: Faculty of Nursing, University of Alberta, 1975.

Hayter, J. "A Follow-up Study of Graduates of the Baccalaureate Degree Program in Nursing." Nursing Research. Vol. 12, No. 1, 45-57, Winter, 1963

Hayter, J. "Follow-up Study of Graduates of the University of Kentucky College of Nursing, 1964-1969." Nursing Research. Vol. 20, No. 1, 55-60, January-February 1971.

Hayter, J. "A Follow-up Study of a Master's Program." Nursing Outlook. 380-385, June 1978.

Johnson, M. Jr. "Definitions and Models in Curriculum." In A. A. Bellack and H. M. Kliebard (eds.), Curriculum and Evaluation. Readings in Educational Research. Berkeley, California: McCutchan Publishing Corp., 3-19, 1977.

Kaufman, R. and S. Thomas. Evaluation Without Fear. New York: New Viewpoints: A Division of Franklin Watts, 1980.

Luker, K. A. "An Overview of Evaluation Research in Nursing." Journal of Advanced Nursing, 6, 87-93, 1981.

MacKay, D. A. and T. O. Maguire. Evaluation of Instructional Programs. Edmonton, Alberta: Human Resources Research Council, May 1971.

Marshall, D. G. "Programme Evaluation and Organizational Effectiveness: A Theoretical and Operational Comparison". Alberta: Department of Education Administration, University of Alberta. Occasional Paper Series. Research Report #80-1-9.

McCallon, E. and E. McCray. Designing and Using Questionnaires. Austin, Texas: Learning Concepts, 1975.

McNeil, L. M. "Bibliographic Essay." In A. A. Bellack and H. M. Kliebard (eds.) Curriculum and Evaluation Readings in Educational Research. Berkley, California: McCutchan Publishing Corp., 627-647, 1977.

Meleis, A. I. and P. Benner. "Process or Product Evaluation." Nursing Outlook. Vol. 23, No. 5, 303-307, May 1975.

Mills, W. C. "Demographic Characteristics and Motivation Orientation of Registered Nurses Enrolled as Part Time University Students." Edmonton, Alberta: University of Alberta, 1979 (Unpublished Master's Thesis).

Nelson, L. F. "Competence of Nursing Graduates in Technical, Communicative, and Administrative Skills." Nursing Research, Vol. 27, No. 2, 121-125, March-April 1978.

Nie, N. H. and Others. SPSS: Statistical Package for the Social Sciences, 2nd Ed. New York: McGraw-Hill Book Co., 1975.

Popham, W. J. and K. A. Sirotnik. Educational Statistics: Use and Interpretation. 2nd Ed. New York: Harper and Row, 1973.

Price, J. and P. Vincent. "Program Evaluation: What to Ask Before You Start." Nursing Outlook, Vol. 24, No. 2, 84-87, February 1976.

Provus, M. "Evaluation of Ongoing Programs in the Public School System." NSSE 68th Yearbook, Part II, 242-283, 1969.

Schwirian, P.M. "Prediction of Successful Nursing Performance, Part 1. A Review of Research Related to the Prediction of Successful Nursing Performance, 1965-1975; Part II: Admission Practices, Evaluation Strategies, and Performance Prediction Among Schools of Nursing." (DHEW Publ. No. (HRA) 77-27), Washington, D.C: U.S. Government Printing Office, 1978a.

Schwirian, P. M. "Evaluating the Performance of Nurses: A Multidimensional Approach." Nursing Research. Vol. 27, No. 6, 347-351, November-December 1978b.

Schwirian, P.M. "Prediction of Successful Nursing Performance, Part 3. Evaluation and Prediction of the Performance of Recent Nurse Graduates; Part 4. Nurse Graduate Performance: An In-depth Analysis of Selected Pertinent Factors." (DHEW Publ. No. (HRA) 79-15), Washington, D.C: U.S. Government Printing Office, 1979a.

Schwirian, P.M. and S. R. Gortner. "How Nursing Schools Predict Their Successful Graduates." Nursing Outlook. Vol. 27, No. 5, 352-358, May 1979b.

Schwirian, P.M. "Toward an Explanatory Model of Nursing Performance." Nursing Research. Vol. 30, No. 4, 247-253, July-August, 1981.

Scriven, M. "The Methodology of Evaluation." In Perspectives of Curriculum Evaluation (AERA Monograph 1) by R. Tyler, R. Gagné, and M. Scriven. Chicago: Rand McNally and Co., 39-83, 1967.

Sheinfeld, S. N. and G. L. Lord. "The Ethics of Evaluation Researchers: An Exploration of Value Choices." Evaluation Review, Vol. 5, No. 3, 337-391, June 1981.

Stake, R. E. "The Countenance of Educational Evaluation." Teachers College Record, 68, 523-540, 1967.

Steed, M. E. "An Evaluation of Students and Graduates of College Nursing Programs in the Province of Alberta." Edmonton: Universities Co-ordinating Council, February 1974.

Stufflebeam, D.L. et al. Educational Evaluation and Decision-Making. Itasca, Illinois: F.E. Peacock Publishers, Inc., 1971.

Suchman, E.A. Evaluation Research. New York: Russell Sage Foundation, 1967.

The Joint Committee on Standards for Educational Evaluation. Standards for Evaluations of Educational Programs, Projects and Materials. New York: McGraw-Hill Books Co., 1981.

Torres, G. "The Need For and Concern Relating to Curriculum Evaluation." National League for Nursing Publication. No. 15-1530:10, 1974.

Treece, E. W. and J. W. Treece, Jr. Elements of Research in Nursing. St. Louis: The C.V. Mosby Co., 1973.

Treece, E. and J. Treece. Elements of Research in Nursing. St. Louis: The C. V. Mosby Co., 1977.

Tyler, R. W. Basic Principles of Curriculum and Instruction. Chicago: The University of Chicago Press, 1949.

University of Alberta, Faculty of Nursing. Calendar. 1981/82.

University of Alberta, Special Sessions. Calendar. 1981/82.

Ward, M.J. and M.E. Fetler. Instruments for Use in Nursing Education Research. Boulder, Colorado: Western Interstate Commission for Higher Education, 1979.

Williams, C. A. "Nurse Practitioner Research: Some Neglected Issues." Nursing Outlook. Vol. 23, No. 3, 172-177, March 1975.

Worthen, B. R. and J. R. Sanders, Educational Evaluation: Theory and Practice. Belmont, California: Wadsworth Publishing Co., Inc., 1973.

Zettinig, P. and N.M. Lang, "Utilization of Quality Assurance Concepts in Educational Evaluation." Nurse Educator. 24-28, July-August, 1981.

APPENDIX A

QUESTIONNAIRES

REGISTERED NURSES

NURSING PERFORMANCE

QUESTIONNAIRE

QUESTIONNAIRE FOR R.N.'s
ENROLLED AS SPECIAL STUDENTS
IN THE FACULTY OF NURSING

SECTION I - GENERAL INFORMATION

Please answer all questions by circling the number on the right of the most appropriate response or by providing a written answer where required. Your responses will be kept confidential.

Do not write in this space

I.D. _ _ _ _ _ 1
1 2 3 4 5

1. Your age is:

under 25	1	6
25 - 29	2	
30 - 34	3	
35 - 39	4	
40 - 44	5	
45 - 49	6	
50 and over	7	

2. Your sex is:

Female	1	7
Male	2	

3. Your marital status is:

Single	1	8
Married	2	
Other	3	

Do not write in this space

4. Number of Children:

None	0	
One	1	
Two	2	9
Three	3	
Four	4	
5 or more	5	

5. From which type of program did you receive your diploma in nursing?

3 year Hospital Diploma Program	1	
2 year College Diploma Program	2	10
Other (please specify)	3	

6. When did you graduate from your initial nursing program?

Before 1960	1	
1960 - 1964	2	
1965 - 1969	3	11
1970 - 1974	4	
1975 - 1979	5	

7. What were your scores on the R.N. Exams?
Check the range closest to your scores.

	1 350-399	2 400-449	3 450-499	4 500-549	5 550-599	6 600-649	7 650+		
Medical Nursing								1	12
Surgical Nursing								2	13
Nursing of children								3	14
Obstetric Nursing								4	15
Psychiatric Nursing								5	16

Was a different scoring system used? Please specify: _____ 6 17

_____

_____

_____

Do not write in this space

8. Are you currently employed in nursing?

Yes _____ 1
No (Proceed to question 13) _____ 2

18

9. If you are employed in nursing, which do you work?

Full-time _____ 1
Part-time _____ 2

19

10. How many years of nursing work experience do you have?

1 - 2 years _____ 1
3 - 5 years _____ 2
6 - 10 years _____ 3
11 - 15 years _____ 4
16 or more _____ 5

20

11. What is the title of your current position?

Staff Nurse _____ 1
Head Nurse or Assistant Head Nurse _____ 2
Supervisor _____ 3
Instructor _____ 4
Community Health Nurse _____ 5
Nursing Administration _____ 6
Clinical Specialist _____ 7
Nurse Consultant _____ 8
Other (please specify) _____ 9

_____
_____

21

12. Did your basic program effectively prepare you for the position and responsibilities you now hold?

Yes _____ 1
No _____ 2
Please comment _____

_____
_____

22

Do not write in this space

13. Are the courses you are taking as a special student required prerequisites by the University of Faculty of Nursing, for entrance to the Post-R.N. program?

Yes _____ 1
No _____ 2 23

14. If these courses are not prerequisites for program entrance, will they apply for credit towards your degree?

Yes _____ 1
No _____ 2 24
Comments _____

_____

_____

15. Do you plan to attend university to complete a baccalaureate degree in nursing in the next five years?

Yes _____ 1
No _____ 2 25

16. If you complete a degree what do you believe will be the major outcome? (Choose one reply.)

Improved working conditions (better hours, days off, etc.) _____ 1
Improved salary _____ 2 26
More challenging or satisfying work _____ 3
Opportunity to change field of practice _____ 4
Personal satisfaction in having a degree _____ 5
Other (please specify) _____ 6

_____

17. Nurses hold different beliefs about having a baccalaureate degree. What do you believe? (Choose one reply that indicates your strongest belief.)

Professional nurses do not need a degree _____ 1
The government will soon require all nurses to have a degree _____ 2
The A.A.R.N. will soon require all nurses to to have a degree _____ 3 27
Only nurses working in teaching, supervision or public health require a degree _____ 4
Professional nurses do need a degree _____ 5
Other (please specify) _____ 6

_____

Section II - Five Dimension Scale
of Nursing Performance

Copyright © 1978, American Journal of Nursing Co.
Adapted with permission from Nursing Research
Nov.-Dec. 1978, Vol. 27, No. 6, p. 349.

Listed below are a selection of nursing activities which nurses perform.

You are asked to respond to two questions relating to each nursing activity. Using the numbers to the right of each statement, please give an estimate of how frequently you perform each activity and how well you perform each activity in your current job.

To respond, please use the following key.

How often do you perform this activity in your current job?

1. never
2. occasionally
3. frequently

How well do you perform this activity in your current job?

1. not very well
2. satisfactorily
3. well
4. very well

EXAMPLE ONLY

ACTIVITY	How often do you perform this activity in your current job?			How well do you perform this activity in your current job?				Do not write in this space
	Never	Ocassionally	Frequently	Not very well	Satisfactorily	Well	Very well	
1. Change a sterile dressing	1	(2)	3	1	(2)	3	4	16 - 18
2. Explain procedures to patient	1	2	(3)	1	2	3	(4)	20 - 22
3. Plan nursing care	1	(2)	3	(1)	2	3	4	24 - 26

ACTIVITY	How often do you perform this activity in your current job?			How well do you perform this activity in your current job?				Do not write in this space
	Never	Occasionally	Frequently	Not very well	Satisfactorily	Well	Very well	
1. Teach a patient's family members about the patient's needs.	1	2	3	1	2	3	4	33, 35
2. Coordinate the plan of nursing care with the medical plan of care.	1	2	3	1	2	3	4	37, 39
3. Give praise and recognition for achievement to those under your direction.	1	2	3	1	2	3	4	41, 43
4. Teach preventive health measures to patients and their families.	1	2	3	1	2	3	4	45, 47
5. Identify and use community resources in developing a plan of care for a patient and his family.	1	2	3	1	2	3	4	49, 51
6. Identify and include in nursing care plans anticipated changes in a patient's condition.	1	2	3	1	2	3	4	53, 55
7. Evaluate results of nursing care.	1	2	3	1	2	3	4	57, 59
8. Promote the inclusion of the patient's decisions and desires concerning his care.	1	2	3	1	2	3	4	61, 63
9. Develop a plan of nursing care for a patient.	1	2	3	1	2	3	4	65, 67
10. Initiate planning and evaluation of nursing care with others.	1	2	3	1	2	3	4	69, 71
11. Adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background, and sensory deprivations.	1	2	3	1	2	3	4	73, 75
12. Identify and include immediate patient needs in the plan of nursing care.	1	2	3	1	2	3	4	77, 79
13. Develop innovative methods and materials for teaching patients.	1	2	3	1	2	3	4	T---2/5 6, 8
14. Communicate a feeling of acceptance of each patient and a concern for the patient's welfare.	1	2	3	1	2	3	4	10, 12

ACTIVITY	How often do you perform this activity in your current job?			How well do you perform this activity in your current job?				Do not write in this space
	Never	Occasionally	Frequently	Not very well	Satisfactorily	Well	Very well	
15. Seek assistance when necessary.	1	2	3	1	2	3	4	14, 16
16. Help a patient communicate with others.	1	2	3	1	2	3	4	18, 20
17. Verbally communicate facts, ideas, and feeling to other health team members.	1	2	3	1	2	3	4	22, 24
18. Promote the patient's right to privacy.	1	2	3	1	2	3	4	26, 28
19. Contribute to an atmosphere of mutual trust, acceptance, and respect among other health team members.	1	2	3	1	2	3	4	30, 32
20. Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health personnel.	1	2	3	1	2	3	4	34, 36
21. Explain nursing procedures to a patient prior to performing them.	1	2	3	1	2	3	4	38, 40
22. Guide other health team members in planning for nursing care.	1	2	3	1	2	3	4	42, 44
23. Accept responsibility for the level of care provided by those under your direction.	1	2	3	1	2	3	4	46, 48
24. Promote the use of interdisciplinary resource persons.	1	2	3	1	2	3	4	50, 52
25. Use teaching aids and resource materials in teaching patients and their families.	1	2	3	1	2	3	4	54, 56
26. Encourage the family to participate in the care of the patient.	1	2	3	1	2	3	4	58, 60
27. Identify and use resources within your health care agency in developing a plan of care for a patient and his family.	1	2	3	1	2	3	4	62, 64
28. Use nursing procedures as opportunities for interaction with patients.	1	2	3	1	2	3	4	66, 68

ACTIVITY	How often do you perform this activity in your current job?			How well do you perform this activity in your current job?				Do not write in this space
	Never	Occasionally	Frequently	Not very well	Satisfactorily	Well	Very well	
29. Contribute to productive working relationships with other health team members.	1	2	3	1	2	3	4	70, 72
30. Help a patient meet his emotional needs.	1	2	3	1	2	3	4	74, 76
31. Contribute to the plan of nursing care for the patient.	1	2	3	1	2	3	4	T 3/5 6, 8
32. Communicate facts, ideas, and professional opinions in writing to patients and their families.	1	2	3	1	2	3	4	10, 12
33. Plan for the integration of patient needs with family needs.	1	2	3	1	2	3	4	14, 16
34. Remain open to the suggestions of those under your direction and use them when appropriate.	1	2	3	1	2	3	4	18, 20
35. Use opportunities for patient teaching when they arise.	1	2	3	1	2	3	4	22, 24
36. Use learning opportunities for ongoing personal and professional growth.	1	2	3	1	2	3	4	26, 28
37. Display self-direction.	1	2	3	1	2	3	4	30, 32
38. Accept responsibility for own actions.	1	2	3	1	2	3	4	34, 36
39. Assume new responsibilities within the limits of capabilities.	1	2	3	1	2	3	4	38, 40
40. Maintain high standards of self-performance.	1	2	3	1	2	3	4	42, 44
41. Demonstrate self-confidence.	1	2	3	1	2	3	4	46, 48
42. Display a generally positive attitude.	1	2	3	1	2	3	4	50, 52
43. Demonstrate knowledge of the legal boundaries of nursing.	1	2	3	1	2	3	4	54, 56
44. Demonstrate knowledge of the ethics of nursing.	1	2	3	1	2	3	4	58, 60
45. Accept and use constructive criticism.	1	2	3	1	2	3	4	62, 64

Thank you for your cooperation.

QUESTIONNAIRE FOR 1981 GRADUATES OF
THE POST-R.N. BACCALAUREATE PROGRAM

SECTION I - GENERAL INFORMATION

Please answer all questions by circling the number on the right of the most appropriate response or by providing a written answer where required. Your responses will be kept confidential.

Do not write in this space

I.D. _ _ _ _ _ 1
1 2 3 4 5

1. Your age is:

Under 25	1	
25 - 29	2	
30 - 34	3	
35 - 39	4	6
40 - 44	5	
45 - 49	6	
50 and over	7	

2. Your sex is:

Female	1	7
Male	2	

3. Your marital status is:

Single	1	
Married	2	8
Other	3	

Do not write in this space

4. Number of Children:

None	0	
One	1	
Two	2	9
Three	3	
Four	4	
5 or more	5	

5. From which type of program did you receive your diploma in nursing?

3 year Hospital Diploma Program	1	
2 year College Diploma Program	2	10
Other (please specify)	3	

6. When did you graduate from your initial nursing program?

Before 1960	1	
1960 - 1964	2	
1965 - 1969	3	11
1970 - 1974	4	
1975 - 1979	5	

7. What were your scores on the R.N. Exams?
Check the range closest to your scores.

	1 350-399	2 400-449	3 450-499	4 500-549	5 550-599	6 600-649	7 650+		
Medical Nursing								1	12
Surgical Nursing								2	13
Nursing of children								3	14
Obstetric Nursing								4	15
Psychiatric Nursing								5	16

Was a different scoring system used? Please specify _____ 6 17

_____

_____

_____

Do not write in this space

8. What was the title of your last position before you entered the post-R.N. Baccalaureate program?

Staff Nurse _____ 1
Head Nurse or Assistant Head Nurse _____ 2
Supervisor _____ 3
Instructor _____ 4
Community Health Nurse _____ 5
Nursing Administration _____ 6
Clinical Specialist _____ 7
Nurse Consultant _____ 8
Other (please specify) _____ 9

_____
_____

18

9. How many years of nursing work experience did you have before enrolling as a full-time student to complete the degree?

1 - 2 years _____ 1
3 - 5 years _____ 2
6 - 10 years _____ 3
11 - 15 years _____ 4
16 or more years _____ 5

19

10. THINK back to the time in your nursing career before you completed your degree. Did your basic program effectively prepare you for the positions and responsibilities you held at that time?

Yes _____ 1
No _____ 2

Please comment _____
_____
_____
_____

20

Do not write in this space

11. What do you believe was the major outcome for you, of completing a baccalaureate degree? (Choose one reply.)

- Improved working conditions (better hours, days off, etc.) _____ 1
- Improved salary _____ 2
- more challenging or satisfying work _____ 3
- opportunity to change field of practice _____ 4
- personal satisfaction in having a degree _____ 5
- Other (please specify) _____ 6

_____

_____

21

12. Were you required to take prerequisite courses before being accepted by the University of Faculty of Nursing?

- Yes _____ 1
- No _____ 2

22

13. Did you take university courses before being accepted by the University of Faculty of Nursing which were not prerequisite, but were credited towards your degree?

- Yes _____ 1
- No _____ 2

23

14. What was your G.P.A. on graduation?

- 5. - 5.9 _____ 1
- 6. - 6.9 _____ 2
- 7. - 7.9 _____ 3
- 8. - 8.9 _____ 4

24

15. How long did you take to complete the degree?

- less than two years _____ 1
- 2 years _____ 2
- 3 years _____ 3
- 4 years _____ 4
- more than 4 years _____ 5

25

Do not write in this space

16. Are you currently employed in nursing?

Yes _____ 1 — 26
No (Please specify and proceed to question 22) _____ 2

_____

_____

17. If you are employed in nursing, which do you work?

Full-time _____ 1 — 27
Part-time _____ 2

18. What is the title of your current position?

Staff Nurse _____ 1
Head Nurse or Assistant Head Nurse _____ 2
Supervisor _____ 3
Instructor _____ 4 — 28
Community Health Nurse _____ 5
Nursing Administration _____ 6
Clinical Specialist _____ 7
Nurse Consultant _____ 8
Other (please specify) _____ 9

_____

_____

19. Did the baccalaureate program effectively prepare you for the position and responsibilities you now hold?

Yes _____ 1 — 29
No _____ 2
Please comment _____

_____

_____

Do not write in this space

20. Could you function as effectively in the position you now hold without a degree?

Yes _____ 1
No (please specify) _____ 2
_____
_____

30

21. Did you obtain the employment position upon receiving your degree that you expected to obtain?

Yes _____ 1
No _____ 2
Please comment _____
_____
_____

31

22. Nurses hold different beliefs about having a baccalaureate degree. What do you believe? (Choose one reply that best indicates your strongest belief.)

Professional nurses do not need a degree _____ 1
The government will soon require all nurses to have a degree _____ 2
The A.A.R.N. will soon require all nurses to have a degree _____ 3
Only nurses working in teaching, supervision or public health require a degree _____ 4
Professional nurses do need a degree _____ 5
Other (please specify) _____ 6
_____
_____

32

Section II - Five Dimension Scale
of Nursing Performance

Copyright © 1978, American Journal of Nursing Co.
Adapted with permission from Nursing Research
Nov.-Dec. 1978, Vol. 27, No. 6, p. 349

Listed below are a selection of nursing activities which nurses perform.

You are requested to answer four questions relating to each activity. Take a few moments and think back to the nursing job you were doing immediately before you entered the degree program.

How often did you perform the selected activity in that previous job?

How well did you perform that activity before entering the degree program?

Now think about the job you are doing since completing your degree.

How often do you perform the selected activity in your current job?

How well do you perform that activity since completing your degree?

To respond, please use the following key, circling the correct answer.

How often did/do you perform this activity in your previous/current job?

1. never
2. occasionally
3. frequently

How well did/do you perform this activity in before/since completing your degree?

1. not very well
2. satisfactorily
3. well
4. very well

EXAMPLE ONLY

How often did you perform this activity in your previous job?			How often do you perform this activity in your current job?			ACTIVITY	How well did you perform this activity before entering the degree program?				How well do you perform this activity since completing your degree?				Do not write in this space
Never	Occasionally	Frequently	Never	Occasionally	Frequently		Not very well	Satisfactorily	Well	Very well	Not very well	Satisfactorily	Well	Very well	
1	2	(3)	1	(2)	3	1. Change a sterile dressing	1	2	3	(4)	1	(2)	3	4	16 - 19
1	(2)	3	1	2	(3)	2. Explain procedures to patient	1	(2)	3	4	1	2	(3)	4	20 - 23
(1)	2	3	1	(2)	3	3. Plan nursing care	(1)	2	3	4	1	2	3	(4)	24 - 27

How often did you perform this activity in your previous job?			How often do you perform this activity in your current job?			ACTIVITY	How well did you perform this activity before entering the degree program				How well do you perform this activity since completing your degree?				Do not write in this space
Never	Occasionally	Frequently	Never	Occasionally	Frequently		Not very well	Satisfactorily	Well	Very well	Not very well	Satisfactorily	Well	Very well	
1	2	3	1	2	3	1. Teach a patient's family members about the patient's needs.	1	2	3	4	1	2	3	4	33 - 36
1	2	3	1	2	3	2. Coordinate the plan of nursing care with the medical plan of care.	1	2	3	4	1	2	3	4	37 - 40
1	2	3	1	2	3	3. Give praise and recognition for achievement to those under your direction.	1	2	3	4	1	2	3	4	41 - 44
1	2	3	1	2	3	4. Teach preventive health measures to patients and their families.	1	2	3	4	1	2	3	4	45 - 48
1	2	3	1	2	3	5. Identify and use community resources in developing a plan of care for a patient and his family.	1	2	3	4	1	2	3	4	49 - 52
1	2	3	1	2	3	6. Identify and include in nursing care plans anticipated changes in a patient's condition.	1	2	3	4	1	2	3	4	53 - 56
1	2	3	1	2	3	7. Evaluate results of nursing care.	1	2	3	4	1	2	3	4	57 - 60
1	2	3	1	2	3	8. Promote the inclusion of the patient's decisions and desires concerning his care.	1	2	3	4	1	2	3	4	61 - 64
1	2	3	1	2	3	9. Develop a plan of nursing care for a patient.	1	2	3	4	1	2	3	4	65 - 68
1	2	3	1	2	3	10. Initiate planning and evaluation of nursing care with others.	1	2	3	4	1	2	3	4	69 - 72
1	2	3	1	2	3	11. Adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background, and sensory deprivations.	1	2	3	4	1	2	3	4	73 - 76
1	2	3	1	2	3	12. Identify and include immediate patient needs in the plan of nursing care.	1	2	3	4	1	2	3	4	77 - 80 / 1 - - - 2/5
1	2	3	1	2	3	13. Develop innovative methods and materials for teaching patients.	1	2	3	4	1	2	3	4	6 - 9

How often did you perform this activity in your previous job?			How often do you perform this activity in your current job?			ACTIVITY	How well did you perform this activity before entering the degree program				How well do you perform this activity since completing your degree?				Do not write in this space
Never	Occasionally	Frequently	Never	Occasionally	Frequently		Not very well	Satisfactorily	Well	Very well	Not very well	Satisfactorily	Well	Very well	
1	2	3	1	2	3	14. Communicate a feeling of acceptance of each patient and a concern for the patient's welfare.	1	2	3	4	1	2	3	4	10 - 13
1	2	3	1	2	3	15. Seek assistance when necessary.	1	2	3	4	1	2	3	4	14 - 17
1	2	3	1	2	3	16. Help a patient communicate with others.	1	2	3	4	1	2	3	4	18 - 21
1	2	3	1	2	3	17. Verbally communicate facts, ideas, and feeling to other health team members.	1	2	3	4	1	2	3	4	22 - 25
1	2	3	1	2	3	18. Promote the patient's right to privacy.	1	2	3	4	1	2	3	4	26 - 29
1	2	3	1	2	3	19. Contribute to an atmosphere of mutual trust, acceptance and respect among other health team members.	1	2	3	4	1	2	3	4	30 - 33
1	2	3	1	2	3	20. Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health personnel.	1	2	3	4	1	2	3	4	34 - 37
1	2	3	1	2	3	21. Explain nursing procedures to a patient prior to performing them.	1	2	3	4	1	2	3	4	38 - 41
1	2	3	1	2	3	22. Guide other health team members in planning for nursing care.	1	2	3	4	1	2	3	4	42 - 45
1	2	3	1	2	3	23. Accept responsibility for the level of care provided by those under your direction.	1	2	3	4	1	2	3	4	46 - 49
1	2	3	1	2	3	24. Promote the use of interdisciplinary resource persons.	1	2	3	4	1	2	3	4	50 - 53
1	2	3	1	2	3	25. Use teaching aids and resource materials in teaching patients and their families.	1	2	3	4	1	2	3	4	54 - 57
1	2	3	1	2	3	26. Encourage the family to participate in the care of the patient.	1	2	3	4	1	2	3	4	58 - 61
1	2	3	1	2	3	27. Identify and use resources within your health care agency in developing a plan of care for a patient and his family.	1	2	3	4	1	2	3	4	62 - 65

How often did you perform this activity in your previous job?			How often do you perform this activity in your current job?			ACTIVITY	How well did you perform this activity before entering the degree program				How well do you perform this activity since completing your degree?				Do not write in this space
Never	Occasionally	Frequently	Never	Occasionally	Frequently		Not very well	Satisfactorily	Well	Very well	Not very well	Satisfactorily	Well	Very well	
1	2	3	1	2	3	28. Use nursing procedures as opportunities for interaction with patients.	1	2	3	4	1	2	3	4	66 - 69
1	2	3	1	2	3	29. Contribute to productive working relationships with other health team members.	1	2	3	4	1	2	3	4	70 - 73
1	2	3	1	2	3	30. Help a patient meet his emotional needs.	1	2	3	4	1	2	3	4	74 - 77 3
1	2	3	1	2	3	31. Contribute to the plan of nursing care for the patient.	1	2	3	4	1	2	3	4	T - - - 5 6 - 9
1	2	3	1	2	3	32. Communicate facts, ideas, and professional opinions in writing to patients and their families.	1	2	3	4	1	2	3	4	10 - 13
1	2	3	1	2	3	33. Plan for the integration of patient needs with family needs.	1	2	3	4	1	2	3	4	14 - 17
1	2	3	1	2	3	34. Remain open to the suggestions of those under your direction and use them when appropriate.	1	2	3	4	1	2	3	4	18 - 21
1	2	3	1	2	3	35. Use opportunities for patient teaching when they arise.	1	2	3	4	1	2	3	4	22 - 25
1	2	3	1	2	3	36. Use learning opportunities for ongoing personal and professional growth.	1	2	3	4	1	2	3	4	26 - 29
1	2	3	1	2	3	37. Display self-direction.	1	2	3	4	1	2	3	4	30 - 33
1	2	3	1	2	3	38. Accept responsibility for own actions.	1	2	3	4	1	2	3	4	34 - 37
1	2	3	1	2	3	39. Assume new responsibilities within the limits of capabilities.	1	2	3	4	1	2	3	4	38 - 41
1	2	3	1	2	3	40. Maintain high standards of self-performance.	1	2	3	4	1	2	3	4	42 - 45
1	2	3	1	2	3	41. Demonstrate self-confidence.	1	2	3	4	1	2	3	4	46 - 49
1	2	3	1	2	3	42. Display a generally positive attitude.	1	2	3	4	1	2	3	4	50 - 53

How often did you perform this activity in your previous job?			How often do you perform this activity in your current job?			ACTIVITY	How well did you perform this activity before entering the degree program				How well do you perform this activity since completing your degree?				Do not write in this space
Never	Occasionally	Frequently	Never	Occasionally	Frequently		Not very well	Satisfactorily	Well	Very well	Not very well	Satisfactorily	Well	Very well	
1	2	3	1	2	3	43. Demonstrate knowledge of the legal boundaries.	1	2	3	4	1	2	3	4	54 - 57
1	2	3	1	2	3	44. Demonstrate knowledge of the ethics of nursing.	1	2	3	4	1	2	3	4	58 - 61
1	2	3	1	2	3	45. Accept and use constructive criticism.	1	2	3	4	1	2	3	4	62 - 65

Thank you for your cooperation.

APPENDIX B

CORRESPONDENCE

February 19, 1982

TO: REGISTERED NURSES

Dear Colleagues,

The Faculty of Nursing at the University of is interested in and supportive of research I am conducting as a graduate student in the Department of Educational Administration at the University of Alberta. Your response to this questionnaire is an important part of that research.

The study has two purposes. One purpose is to gather information about the characteristics of registered nurses who may be planning to complete a baccalaureate degree or who have completed one. The other purpose is to study how well nurses believe they perform nursing activities before completing a baccalaureate degree and/or after they complete the degree. Very few studies have been carried out which focus specifically on registered nurses and university education. You are in a unique position to provide me with such information.

Your replies will be held in the strictest confidence. Please do not write your name on the questionnaire. The code numbers are for computer use only.

Copies of the completed study summary will be available for your examination at the University of Alberta Education Library, the University of Alberta Faculty of Nursing, and the A.A.R.N. Library.

I appreciate how busy you are and I wish to thank you for assisting me with this study. Those who have reviewed the questionnaire indicate that approximately twenty minutes are required to complete it. When you have completed the questionnaire, please return it to me in the enclosed envelope, if possible, within one week.

Thank you very much for your assistance in this research.

Sincerely,

Darlene Elliott, Reg. N., B.Sc.N.
Graduate Student
Department of Educational Administration
University of Alberta
Edmonton, Alberta
T6G 2G5

DE/pk
Encl.

March 8, 1982

Dear Colleague,

Re: Nursing Performance Questionnaire

Two weeks ago you received a questionnaire which focused on the performance of registered nurses who were contemplating completing a baccalaureate degree or had completed one.

The response to the questionnaire has been excellent. I wish to thank those of you who responded so promptly.

I would still appreciate a response from those of you who were so very busy or possibly away basking in sunnier climates at the time of the initial distribution.

Your participation will provide valuable information for the overall findings of the study. Please take a few moments and return the completed questionnaire to me in the enclosed envelope.

Thank you for your cooperation.

Yours sincerely,

Darlene Elliott, B.Sc.N.
Graduate Student
Department of Educational
Administration

DE/pk
Encl.

March 18, 1982

Dear Colleague,

Re: Nursing Performance Questionnaire

Approximately one month ago you received a questionnaire which focused on the performance of registered nurses who were contemplating completing a baccalaureate degree or had completed one.

I could not have chosen a more inopportune time to distribute this questionnaire. I appreciate that the strike situation has taken its toll on those of you in Alberta. In spite of this, the response has been very good. A sincere thank you to those of you who somehow found the time to respond.

I am now ready to begin data analysis. However, before I do, I would like to give those of you who have not sent back the questionnaire an opportunity to have your responses included in the analysis. Your participation will provide valuable data for the overall findings of the study.

Please take a few moments and return the completed questionnaire to me. Thank you for your cooperation.

Yours sincerely,
Darlene Elliott, B.Sc.N.
Department of Educational
Administration
University of Alberta

DE/pk

AMERICAN JOURNAL OF NURSING COMPANY

555 WEST 57TH STREET • NEW YORK, NEW YORK 10019 • 212-582-8820

December 8, 1981

Ms. Darlene Elliott
11436-32 Avenue
Edmonton, Alberta
T5J 3H5
Canada

Dear Ms. Elliott:

As per our telephone conversation of November 24, 1981, permission is hereby granted for you to utilize the "Six-D Scale" which accompanies the article "Evaluating the Performance of Nurses: A Multidimensional Approach" from the November-December 1978 issue of Nursing Research.

It is our understanding that scale will be used in your thesis. Please use the following credit line as acknowledgement of permission received.

> Copyright © 1978, American Journal of Nursing Company.
> Reprint from Nursing Research, November-December, Vol. 27, No. 6.

Thank you for your cooperation and interest in our materials.

Cordially yours,

Lillian Vega

Lillian Vega
Permissions Editor

/lmv

APPENDIX C

FACTOR ANALYSIS

Table 3.2

Factor Loadings for Schwirian's Six-D Scale of Nursing Performance

Scale	Item Number	Item Content	Self-Appraisals	Employer Appraisals
Leadership	3	Give praise and recognition for achievement to those under your direction	.572	.725
	23	Delegate responsibility for care based on assessment of priorities of nursing care needs *and* the abilities and limitations of available health care personel	.570	.669
	25	Guide other health team members in planning for nursing care	.560	.745
	26	Accept responsibility for the level of care provided by those under your direction	.774	.473
	41	Remain open to the suggestions of those under your direction and use them when appropriate	.756	.664
Critical Care	11	Perform technical procedures e.g., oral suctioning, tracheostomy care, intravenous therapy, catheter care, dressing changes	.586	.414
	18	Use mechanical devices, e.g., suction machine, Gomco, cardiac monitor, respirator	.761	.459
	19	Give emotional support to family of dying patient	.544	.796
	27	Perform appropriate measures in emergency situations	.628	.231
	30	Perform nursing care required by critically ill patients	.759	.526
	37	Recognize and meet the emotional needs of a dying patient	.426	.712
	40	Function calmly and competently in emergency situations	.555	.166
Teaching/ Collaboration	1	Teach a patient's family members about the patient's needs	.541	.469
	4	Teach preventive health measures to patients and their families	.584	.527
	5	Identify and use community resources in developing a plan of care for a patient and his family	.698	.589
	12	Adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background, and sensory deprivations	.543	.433
	14	Develop innovative methods and materials for teaching patients	.636	.594
	28	Promote the use of interdisciplinary resource persons	.467	.428
	29	Use teaching aids and resource materials in teaching patients and their families	.714	.661
	31	Encourage the family to participate in the care of the patient	.490	.541
	32	Identify and use resources within your health care agency in developing a plan of care for a patient and his family	.642	.553
	35	Communicate facts, ideas, and professional opinions in writing to patients and their families	.578	.541
	39	Plan for the integration of patient needs with family needs	.576	.422
Planning/Evaluation	2	Coordinate the plan of nursing care with the medical plan of care	.652	.592
	6	Identify and include in nursing care plans anticipated changes in a patient's conditions	.650	.667
	7	Evaluate results of nursing care	.475	.570
	9	Develop a plan of nursing care for a patient	.737	.777
	10	Initiate planning and evaluation of nursing care with others	.610	.626
	13	Identify and include immediate patient needs in the plan of nursing care	.577	.548
	36	Contribute to the plan of nursing care for the patient	.440	.510
IPR/Communications	8	Promote the inclusion of patient's decisions and desires concerning his care	.565	.407
	15	Communicate a feeling of acceptance of each patient and a concern for the patient's welfare	.722	.310
	16	Seek assistance when necessary	.491	.130
	17	Help a patient communicate with others	.603	.445
	20	Verbally communicate facts, ideas, and feelings to other health team members	.411	.069
	21	Promote the patients' rights to privacy	.755	.493
	22	Contribute to an atmosphere of mutual trust, acceptance, and respect among other health team members	.456	.104
	24	Explain nursing procedures to a patient prior to performing them	.825	.738
	33	Use nursing procedures as opportunities for interaction with patients	.583	.401
	34	Contribute to productive working relationships with other health team members	.464	.066
	38	Help a patient meet his emotional needs	.716	.646
	42	Use opportunities for patient teaching when they arise	.605	.465
Professional Development	43	Use learning opportunities for ongoing personal and professional growth		
	44	Display self-direction		
	45	Accept responsibility for own actions		
	46	Assume new responsibilities within the limits of capabilities		
	47	Maintain high standards of performance		
	48	Demonstrate self-confidence		
	49	Display a generally positive attitude		
	50	Demonstrate knowledge of the legal boundaries of nursing		
	51	Demonstrate knowledge of the ethics of nursing		
	52	Accept and use constructive criticism		

Reprinted from Nursing Research, Vol. 27, No. 6, page 349, Nov. - Dec. 1978 with permission.

Table 3.3

Factor Loadings for Schwirian's constructs based on combined responses of special students, graduates before entering degree program and graduates after completing degree program
(N = 53)

Scale	Item Number	Activity	Combined Self-Appraisals
Leadership	3	Give praise and recognition for achievement to those under your direction.	.023
	20	Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health personnel.	.865
	22	Guide other health team members in planning for nursing care.	.677
	23	Accept responsibility for the level of care provided by those under your direction.	.648
	34	Remain open to the suggestions of those under your direction and use them when appropriate.	.510
Teaching/ Collaboration	1	Teach a patient's family members about the patient's needs.	.449
	4	Teach preventive health measures to patients and their families.	.628
	5	Identify and use community resources in developing a plan of care for a patient and his family.	.665

Table 3.3 (continued)

Scale	Item Number	Activity	Combined Self-Appraisals
	11	Adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background, and sensory deprivations.	.666
	13	Develop innovative methods and materials for teaching patients.	.307
	24	Promote the use of interdisciplinary resource persons.	.433
	25	Use teaching aids and resource materials in teaching patients and their families.	.506
	26	Encourage the family to participate in the care of the patient.	.883
	27	Identify and use resources within your health care in developing a plan of care for a patient and his family.	.619
	32	Communicate facts, ideas, and professional opinions in writing to patients and their families.	.557
	33	Plan for integration of patient needs with family needs.	.783

Table 3.3 (continued)

Scale	Item Number	Activity	Combined Self-Appraisals
Planning/ Evaluation	2	Coordinate the plan of nursing care with the medical plan of care.	.045
	6	Identify and include in nursing care plans anticipated changes in a patient's condition.	.572
	7	Evaluate results of nursing care.	.608
	9	Develop a plan of nursing care for a patient.	.478
	10	Initiate planning and evaluation of nursing care with others.	.470
	12	Identify and include immediate patient needs in the plan of nursing care.	.066
	31	Contribute to the plan of nursing care for the patient.	.131
IPR/ Communications	8	Promote the inclusion of the patient's decisions and desires concerning his care.	.039
	14	Communicate feeling of acceptance of each patient and a concern for the patient's welfare.	.582
	15	Seek assistance when necessary.	.739
	16	Help a patient communicate with others.	.456

Table 3.3 (continued)

Scale	Item Number	Activity	Combined Self-Appraisals
	17	Verbally communicate facts, ideas, and feeling to other health team members.	.434
	18	Promote the patient's right of privacy.	.329
	19	Contribute to an atmosphere of mutual trust, acceptance, and respect among other health team members.	.053
	21	Explain nursing procedures to a patient prior to performing them.	.241
	28	Use nursing procedures as opportunities for interaction with patients.	.026
	29	Contribute to productive working relationships with other health team members.	.025
	30	Help a patient meet his emotional needs.	.360
	35	Use opportunities for patient teaching when they arise.	.138
Professional Development	36	Use learning opportunities for ongoing personal and professional growth.	.392
	37	Display self-direction.	.826
	38	Accept responsibility for own actions.	.829

Table 3.3 (continued)

Scale	Item Number	Activity	Combined Self-Appraisals
	39	Assume new responsibilities within the limits of capabilities.	.687
	40	Maintain high standards of self-performance.	.627
	41	Demonstrate self-confidence.	.365
	42	Display a generally positive attitude.	.412
	43	Demonstrate knowledge of the legal boundaries of nursing.	.036
	44	Demonstrate knowledge of the ethics of nursing.	.179
	45	Accept and use constructive criticism.	.201

Table 3.4

New constructs based on factor loadings of combined responses of special students, graduates before entering degree program and graduates after completing degree program
(N = 53)

Scale	Item Number	Activity	Combined Self-Appraisals
Leadership/ Team Cooperation	17	Verbally communicate facts, ideas, and feeling to other health team members.	.581
	19	Contribute to an atmosphere of mutual trust, acceptance, and respect among other health team members.	.622
	20	Delegate responsibility for care based on assessment of priorities of nursing care needs and the abilities and limitations of available health personnel.	.864
	22	Guide other health team members in planning for nursing care.	.677
	23	Accept responsibility for the level of care provided by those under your direction.	.647
	29	Contribute to productive working relationships with other health team members.	.725
	34	Remain open to the suggestions of those under your direction and use them when appropriate.	.510
	45	Accept and use constructive criticism.	.386

Table 3.4 (continued)

Scale	Item Number	Activity	Combined Self-Appraisals
Teaching/ Resource-fullness	1	Teach a patient's family members about the patient's needs.	.448
	4	Teach preventive health measures to patients and their families.	.627
	5	Identify and use community resources in developing a plan of care for a patient and his family.	.664
	8	Promote the inclusion of the patient's decisions and desires concerning his care.	.401
	11	Adapt teaching methods and materials to the understanding of the particular audience: e.g., age of patient, educational background, and sensory deprivations.	.665
	24	Promote the use of interdisciplinary resource persons.	.433
	25	Use teaching aids and resource materials in teaching patients and their families.	.505
	26	Encourage the family to participate in the care of the patient.	.883
	27	Identify and use resources within your health care in developing a plan of care for a patient and his family.	.619

Table 3.4 (continued)

Scale	Item Number	Activity	Combined Self-Appraisals
	28	Use nursing procedures as opportunities for interaction with patients.	.537
	32	Communicate facts, ideas, and professional opinions in writing to patients and their families.	.556
	33	Plan for integration of patient needs with family needs.	.782
	35	Use opportunities for patient teaching when they arise.	.665
Planning/ Evaluation	3	Give praise and recognition for achievement to those under your direction.	.610
	6	Identify and include in nursing care plans anticipated changes in a patient's condition.	.572
	7	Evaluate results of nursing care.	.607
	10	Initiate planning and evaluation of nursing care with others.	.469
	13	Develop innovative methods and materials for teaching patients.	.574
	43	Demonstrate knowledge of the legal boundaries of nursing.	.593
	44	Demonstrate knowledge of the ethics of nursing.	.422

Table 3.4 (continued)

Scale	Item Number	Activity	Combined Self-Appraisals
Communication/ Coordination	2	Coordinate the plan of nursing care with the medical plan of care.	.454
	9	Develop a plan of nursing care for a patient.	.456
	12	Identify and include immediate patient needs in the plan of nursing care.	.597
	14	Communicate feeling of acceptance of each patient and a concern for the patient's welfare.	.582
	15	Seek assistance when necessary.	.738
	16	Help a patient communicate with others.	.456
	18	Promote the patient's right of privacy.	.328
	21	Explain nursing procedures to a patient prior to performing them.	.241
	30	Help a patient meet his emotional needs.	.454
	31	Contribute to the plan of nursing care for the patient.	.359
Professional Development	36	Use learning opportunities for ongoing personal and professional growth.	.392
	37	Display self-direction.	.825

Table 3.4 (continued)

Scale	Item Number	Activity	Combined Self-Appraisals
	38	Accept responsibility for own actions.	.828
	39	Assume new responsibilities within the limits of capabilities.	.687
	40	Maintain high standards of self-performance.	.627
	41	Demonstrate self-confidence.	.365
	42	Display a generally positive attitude.	.412

AFTER ROTATION WITH KAISER NORMALIZATION

FACTOR PATTERN

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
ITEM1	0.44872	-0.27236	0.03586	0.08725	0.11981
ITEM2	0.26462	-0.04489	0.09579	0.05514	0.45443
ITEM3	0.04067	-0.61086	-0.02255	0.11699	0.07705
ITEM4	0.62780	-0.37634	-0.24837	0.12133	0.07753
ITEM5	0.66495	-0.17792	-0.13344	-0.00327	0.23820
ITEM6	0.05677	-0.57243	0.24729	-0.12124	0.12555
ITEM7	0.19283	-0.60772	0.03136	0.27110	-0.13159
ITEM8	0.40177	-0.41749	0.07426	0.16655	-0.03886
ITEM9	-0.02958	-0.47780	0.30232	-0.05000	0.45675
ITEM10	0.17403	-0.46910	0.34623	-0.07223	0.24485
ITEM11	0.66589	-0.29219	-0.16542	-0.04945	0.20357
ITEM12	0.10184	-0.06605	0.02154	0.18225	0.59773
ITEM13	0.30745	-0.57459	-0.02224	0.14777	0.08077
ITEM14	0.16050	0.05161	0.07081	0.08356	0.58233
ITEM15	-0.08790	-0.05210	0.02870	0.14319	0.73899
ITEM16	0.17129	0.02718	-0.00137	0.27174	0.45642
ITEM17	0.19390	0.22916	0.58141	-0.08776	0.43354
ITEM18	0.26911	-0.00111	-0.09189	0.25265	0.32865
ITEM19	0.02877	-0.09338	0.62207	0.30928	-0.05328
ITEM20	-0.06887	-0.09783	0.86465	-0.08321	0.15728
ITEM21	0.30475	0.22145	0.24079	0.28759	0.24115
ITEM22	-0.07011	-0.18056	0.67707	0.08239	0.05441
ITEM23	0.01079	-0.03879	0.64791	0.27194	-0.05894
ITEM24	0.43325	-0.31252	0.14216	-0.06958	0.23518
ITEM25	0.50579	-0.48918	0.17195	0.03916	-0.02338
ITEM26	0.88346	0.16555	0.03778	0.17031	-0.02997
ITEM27	0.61943	-0.03469	0.22930	-0.04406	0.25025
ITEM28	0.53775	0.23435	0.31560	0.12826	0.02594
ITEM29	0.15111	-0.00829	0.72516	-0.04138	-0.02464
ITEM30	0.32486	-0.09295	0.17830	0.07634	0.35924
ITEM31	0.18543	-0.13066	0.30188	0.06958	0.45400
ITEM32	0.55666	-0.31654	0.26522	0.00445	-0.22239
ITEM33	0.78291	-0.03885	0.09183	0.02396	0.06633
ITEM34	0.07005	-0.27590	0.51033	0.20644	0.02009
ITEM35	0.66573	-0.16554	0.09556	0.02088	0.13767
ITEM36	0.06033	-0.27134	-0.05996	0.39156	0.29315
ITEM37	-0.02909	-0.10202	0.04283	0.82569	0.03074
ITEM38	0.03513	0.04531	-0.00873	0.82884	0.16779
ITEM39	-0.11470	-0.10806	0.02219	0.68727	0.21818
ITEM40	0.22932	0.03328	0.40769	0.62743	-0.25423

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
ITEM41	0.26542	0.10415	0.21397	0.36543	0.19895
ITEM42	0.09905	-0.00082	-0.01270	0.41218	0.43611
ITEM43	0.06304	-0.59328	0.28420	0.03577	-0.08777
ITEM44	0.32894	-0.42281	0.02700	0.17944	0.08239
ITEM45	-0.14113	-0.33348	0.38645	0.20067	0.25833

FACTOR CORRELATIONS

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
FACTOR 1	1.00000	-0.41659	0.39158	0.44132	0.44695
FACTOR 2	-0.41659	1.00000	-0.30506	-0.27197	-0.27158
FACTOR 3	0.39158	-0.30506	1.00000	0.36350	0.31454
FACTOR 4	0.44132	-0.27197	0.36350	1.00000	0.42412
FACTOR 5	0.44695	-0.27158	0.31454	0.42412	1.00000

FACTOR STRUCTURE

	FACTOR 1	FACTOR 2	FACTOR 3	FACTOR 4	FACTOR 5
ITEM1	0.66828	-0.52650	0.36406	0.42320	0.44261
ITEM2	0.54827	-0.32275	0.37608	0.41168	0.63841
ITEM3	0.37238	-0.67366	0.24648	0.32555	0.30364
ITEM4	0.77552	-0.61616	0.18076	0.44335	0.43367
ITEM5	0.79184	-0.47802	0.25495	0.39109	0.54036
ITEM6	0.39468	-0.67264	0.43956	0.20263	0.33274
ITEM7	0.51911	-0.73561	0.34941	0.47707	0.24448
ITEM8	0.66090	-0.64226	0.40726	0.46792	0.34809
ITEM9	0.46993	-0.66815	0.56198	0.37050	0.64718
ITEM10	0.58259	-0.69407	0.60824	0.36185	0.52830
ITEM11	0.79200	-0.56097	0.23052	0.35010	0.50754
ITEM12	0.48538	-0.32694	0.33583	0.50649	0.74526
ITEM13	0.63943	-0.75802	0.35256	0.46590	0.42991

APPENDIX D

RESPONDENT COMMENTS

- Special Students
- Graduates

Special Students'

Questionnaire Comments

5. From which type of program did you receive your diploma in nursing?

I have three years hospital psychiatric nursing training, one and a half years of hospital general nursing training in and one year College Diploma Program in Canada.

7. What were your scores on the R.N. Exams?
Check the range closest to your scores.

Nurs. 230 Psychiatric - Fall Semester 1963.

Sem. Units 5.0 Grade A. Grade Points 20.0.

We passed or failed, I was not given any scores.

12. Did your basic program effectively prepare you for the position and responsibilities you now hold?

The program did not prepare me for management duties.

As an instructor in a specialty unit additional skills were necessary.

Started going to school as soon as graduated -- also working in many places.

I presently work on the intravenous Therapy Team. Nurses did not start IV's when I was a student.

Work experience, more than training is the expertise that qualified me for the job.

I work in the caseroom -- found that what I learned as a student in Obstetrics was a mere drop in the bucket of what an obstetrical nurse needs to know.

But not very satisfactorily.

Medical advances and new treatments necessitate continuing education, either formal or personally.

I'm working in a specialty area in which my nursing program didn't prepare me for anything except for anatomy and physiology. I did receive an orientation for my present job.

12. (Cont'd)

Management skills not in a basic program.

I needed extra training in many areas, e.g., field first aid; spirometric testing, audiometric testing, pulmonary function testing, industrial toxicology. Also, it did not prepare me for having to make medical decisions without a Doctor's instructions and orders.

Yes, but continual education is necessary.

Basic program will only prepare for nursing care -- it does not prepare one for responsibilities that one may hold 10 years after graduation.

There was no training in administration skills, i.e., making hours, notations, budget, census or statistics.

14. If these courses are not prerequisites for program entrance, will they apply for credit towards your degree?

The courses I take can also be transferred to another faculty.

I have already taken 10 half courses for credit towards my degree -- these include all prerequisites.

15. Do you plan to attend university to complete a baccalaureate degree in nursing in the next five years?

I hope to do so but it is not a definite plan.

16. If you complete a degree what do you believe will be the major outcome? (Choose one reply.)

I can use it to study further, i.e., Medicine.

Opportunity for advancement in present job area.

17. Nurses hold different beliefs about having a baccalaureate degree. What do you believe? (Choose one reply that indicates your strongest belief.)

A nurse should have a degree only if she feels she needs one, without one, she can still function adequately, after graduation in caring for the sick.

Professional and personal growth.

I do not believe that all nurses require a degree but I believe a degree will broaden the outlook of many nurses. It should be of free will.

I don't believe any degree helps in the performance of work -- but it is required by government in certain areas.

I do not believe a degree improves nursing skills.

Most nurses obtain their baccalaureate degree to get out of working shift, broadening opportunities (job) by having BScN.

Advancement in nursing (i.e., hierarchy) requires a degree.

Skills obtained in a degree program are advantageous; however, dependent on the type of nursing done are not always necessary.

1981 Graduates'

Questionnaire Comments

5. From which type of program did you receive your diploma in nursing?

2½ year Diploma Hospital Program.

2 year Hospital Diploma Program.

3 year College diploma program (CEGEP - Quebec).

4 year (PMH), year RN, 2 year PN.

7. What were scores on the R.N. Exams?
Check the range closest to your scores.

Was a different scoring system used?

R.N. exams taken in London, England, not sure of scoring system.

R.N.'s were done in Ontario in 1975. I do not remember what my marks were but all of them were over 350.

Sorry, I don't remember my scores.

Passing Scores was 325.

I have never known my scores.

R.N. marks were A, A, B, B, D -- don't remember which subjects and don't have transcripts.

10. THINK back to the time in your nursing career before you completed your degree. Did your basic program effectively prepare you for the positions and responsibilities you held at that time?

There were many aspects I felt unsure of like advocacy, the physical assessment skills legal aspects -- Nursing Care Plan importance -- even knowing where nursing is going as a profession -- and what opportunities are available for nurses.

I knew what I needed to teach but was not sure how to do it effectively, and how to find and use all the resources available.

More practical experience in the basic program would have given me more confidence.

I only functioned as a staff nurse and I feel my 3 year hospital based program certainly prepared me for that.

The two-year program did not provide enough practical experience. I had a lot of responsibility in a small hospital which I was not initially prepared for.

As a general duty staff nurse I believe my basic training (R.N.) was adequate preparation both in technical skills and interpersonal relations.

Skills were taught well but a professional mature attitude was not encouraged.

10. (Cont'd)

Focus on functioning in clinical setting. Basic program very effective in this regard, i.e., little reality shock experienced.

I believe the hospital program was very vague in preparing for the work force.

I think the basic program prepares a person well enough for the staff nurse level. I was lacking a fair amount of technical skills, but it did not take long to pick them up on the job.

I did not get much experience in most areas, especially specific skills; however, I did have some practice in all skills so I was not scared to do my work.

Not enough management or teaching preparation.

I was in charge of a medical ward on the afternoon shift when I was a first year student.

We were given adequate education in all areas of nursing, including leadership responsibilities.

The 3-year hospital program of 20 years ago certainly taught one to work hard and accept responsibility. However, it was very illness oriented, and I do regret the many changes.

10. (Cont'd)

Taking a 2 year college-based program. I needed the first year on the job to feel totally comfortable with my work.

Deficient in writing skills and ability to use nursing process thoroughly in an outpatient setting -- previous nursing experience was all acute care.

I completed a Public Health Diploma in 1969.

I had a lot of learning "on-the-job" to do (e.g., for team-leading and being in charge) but I luckily had good role models available from whom I could learn.

The 2 year program prepared me for direct/primary nursing to patient. As an R.N. I found I was mostly supervising and delegating the nursing care given by others, i.e., orderlies, R.N.A.

As an instructor-teacher, I had to prepare programs, classes, courses, etc. I was unprepared in how to go about it.

Although I believe we were well prepared for bedside care, certain aspects of work management, organizational interactions and leadership were seldom mentioned. These often turned out to be very important areas of work.

10. (Cont'd)

Responsibility was given to me in my third and fourth years on the 3 - 11 night shift. If one is not given the FREEDOM to take on or share responsibility it is not as readily LEARNED or practiced.

We had a very well rounded experience with exposure to many specialty as well as basic areas -- as well we were relied upon for service by the hospital which I think broadened our experience and increased our responsibilities.

Diploma program was light on theory and heavy on labor. It was a task oriented program -- tasks for active treatment.

It prepared me to be a good "task" completer. It did not give me a lot of "why's" or physiology, etc. as well as any idea that there was more than one way to do something. But it was fairly adequate training for a staff nurse.

11. What do you believe was the major outcome for you, of completing a baccalaureate degree? (Choose one reply.)

Satisfying work.

Vehicle to admission to a Master's Program.

For the future I developed a broader view of nursing and life in general.

Autonomy and better working hours.

Priorities: 5, 4 (PH -- when opening available); 3, 1, 2. Salaries (Nsg.) are in dark ages -- i.e., does a teacher with a BSc get 50¢ an hour raise? -- Janitors in my area earn more than I do with 6½ years of education.

Essentially the major outcome is the one I've indicated (improved working conditions -- better hours, days off, etc.) but personal satisfaction with the opportunity to diversify within nursing.

12. Were you required to take prerequisite courses before being accepted by the University of of Nursing?

Psy 260 and 261(which wasn't necessary for me because I had PN -- 261 was review of abnormal behavior.

18. What is the title of your current position?

Coronary Teaching Co-ordinator.

Clinical Instructor -- orientation and teaching and program planning on a medical unit.

Nurse Co-ordinator - Education Officer.

Victorian Order of Nurses.

Instructor with Registered Nursing Assistant program and Prenatal.

Community Health Nurse in a V.D. Clinic.

19. Did the baccalaureate program effectively prepare you for the position and responsibilities you now hold?

I believe the knowledge learned in the Post Basic Program has helped in my present job.

I learned how to find the information I need to work with. My verbal and written communication skills are much improved.

Emphasis on self care and patient education are basic to my present position. Both were stressed in the baccalaureate program.

As an assignment for one of my courses I researched and drew up the job description for the position I now have.

I am not using my degree yet. I will be changing jobs this summer/fall that require a degree.

Not enough emphasis on community health nursing.

I have found the BScN program content to be very relevant -- which actually surprised my as I often felt that I was gaining little from my university nursing courses.

I am doing a lot of on-the-job training.

19. (Cont'd)

Teaching course as you do a lot of teaching.

My goal is to get into PH so I can TEACH. Better hours increased responsibility and independence, better hours and personal satisfaction because I'll be doing what I want to do.

To a certain degree -- my past nursing experience also helped a lot.

I have learned a great deal on the job.

Difficult to say really as I returned to the same unit but climbed the ladder; whether it was due to my expertise or my having obtained BScN am not certain.

It taught one management and educational skills which I now frequently use.

20. Could you function as effectively in the position you now hold without a degree?

The BScN enhanced my teaching skills and helped me develop a more holistic attitude towards patient care -- both essentials to my present position.

But, I would probably be less able to handle the frustrations.

I would be lacking the management and organizational skills required. Also, I feel my thinking processes are of a higher level.

Some of the clinical instructors do not have a BScN and are finding it difficult. I have a greater knowledge of teaching skills that are needed. I have greater knowledge of resources that are available.

I had a much narrower perspective of nursing prior to going to university. I now think "health" rather than "illness", and "self help" rather than "doing for."

Job needs a lot of thinking and judging and decisions which skills were enhanced by taking my degree.

Better writing skills, better able to define "what is nursing?", increased awareness of administrative skills and lack on my part -- greater feeling of confidence in decision-making.

20. (Cont'd)

I think I have a broader view of nursing and more depth of knowledge which helps me function more effectively, even though only at a staff nurse position.

I would have quit this job by now had I not attained the skills.

Needed learning experience in university to plan courses, teach creatively and effectively.

My present knowledge of organizational framework and principles of teaching and learning help immensely.

My initial training prepared me for staff nursing.

My horizons were definitely broadened in dealing with families.

I wouldn't have had a clue about program planning, teaching principles, etc.

I would not feel competent without the knowledge I have gained in the last two years.

21. Did you obtain the employment position upon receiving your degree that you expected to obtain?

I wanted to teach.

I am waiting to get into public health for city.

Returned to similar position but was able to expand nursing role due to having degree.

I did not have relevant practical nursing experience to work in the area I wanted to (i.e., cardiology experience for the Cardiac Recovery Room).

Need more experience. I would have liked to be a nursing consultant or something, but I find you have to have been established in the institution before or have more experience which only makes sense.

There were many choices.

I originally intended to work in Public Health, but lack of an automobile stopped this idea.

I want to teach -- the Hospital does not have an opening for a Clinical Instructor and at present there is no opening for another PH nurse (at present in this area RN's and RNA's are doing PH Nsg.).

21. (Cont'd)

Due to recent relocation, have not applied for many other positions.

Not sure of the question.

It took awhile, however (4 months), before I found the job I wanted.

22. Nurses hold different beliefs about having a baccalaureate degree. What do you believe? (Choose one reply that best indicates your strongest belief.)

Degree programs promote a more professional and career oriented attitude to nursing in most nurses.

A degree is a definite asset for any professional nurse but is not necessary for all nursing positions, especially staff nurses.

Depends what you mean by professional nurses. I believe there is a professional-technical component in any practice setting which are inseparable, i.e., knowledge can be gained through formal and informal education (self-learning) but knowledge must be applied in work setting.

Not sure: it appears that many staff nurses can function effectively without a degree now, but the role of the nurse is in a process of changing so that a degree may be required in the future. I believe, though, that to be true professionals, nurses do need to have a degree.

Advanced education in the nursing field is necessary for increased insight etc. I firmly believe in continuing education. Many nurses I work with refer to themselves as professionals and do absolutely nothing to continue with their education. With increased education many variables also increase, i.e., more positive attitude, more insight into needs and problems,

22. (Cont'd)

increased understanding and in turn more benefit to patient or client care.

I feel that a degree would best prepare a nurse to be all the things she can be and prepare her for a variety of types of nursing jobs, i.e., education, community health, supervision, etc.

APPENDIX E

SPECIAL STUDENTS

MULTIPLE REGRESSION

DEPENDENT VARIABLE.. F1 LEADERSHIP

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V18	ARE COURSES PREREQUISITES	0.23208	0.05386	0.05386	0.23208	0.3191855	0.22866
V20	PLAN TO COMLETE DEGREE WITHIN 5 YRS	0.30803	0.09488	0.04102	-0.15376	-0.3845989	-0.17785
V4	NR OF CHILDREN	0.34054	0.11597	0.02108	-0.11721	-0.2529809	-0.51924
V6	GRADUATION FROM INITIAL NURSING PROGR	0.39400	0.15523	0.03927	0.01076	-0.2686326	-0.62730
V17	DID BASIC PROGRAM EFFECTIVELY PREPARE	0.45577	0.20772	0.05249	-0.15948	-0.4878750	-0.36553
RN	MEAN R.N. SCORE	0.50919	0.25927	0.05155	-0.03214	-0.8473855E-01	-0.26522
V1	AGE	0.53097	0.28192	0.02265	-0.13969	-0.1591674	-0.38317
V16	TITLE OF POSITION	0.54507	0.29710	0.01517	0.21728	0.1998143	0.14971
V15	YRS NURSING EXPERIENCE	0.55020	0.30272	0.00562	0.13074	0.8036181E-01	0.14393
V5	TYPE OF PROGRAM	0.55138	0.30402	0.00131	0.03619	-0.9739989E-01	-0.06043
(CONSTANT)						5.178200	

DEPENDENT VARIABLE.. F3 TEACHING-COLLABORATION

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V18	ARE COURSES PREREQUISITES	0.37464	0.14035	0.14035	0.37464	0.7287785	0.51736
V17	DID BASIC PROGRAM EFFECTIVELY PREPARE	0.44348	0.19667	0.05632	-0.23732	-0.5474133	-0.40551
RN	MEAN R.N. SCORE	0.47133	0.22215	0.02548	-0.09927	-0.9235656E-01	-0.27337
V5	TYPE OF PROGRAM	0.51174	0.26188	0.03973	0.07296	-0.1300792	-0.08027
V4	NR OF CHILDREN	0.55394	0.30684	0.04496	0.00007	-0.3831610	-0.77680
V6	GRADUATION FROM INITIAL NURSING PROGR	0.59862	0.35835	0.05150	-0.10067	-0.3041472	-0.70957
V20	PLAN TO COMLETE DEGREE WITHIN 5 YRS	0.61020	0.37234	0.01399	0.01184	-0.4035072	-0.18613
V16	TITLE OF POSITION	0.61427	0.37733	0.00499	0.03429	-0.1252766	-0.09280
(CONSTANT)						5.100145	

DEPENDENT VARIABLE.. F5 PLANNING-EVALUATION

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V17	DID BASIC PROGRAM EFFECTIVELY PREPARE	0.43391	0.18828	0.18828	-0.43391	-0.7427930	-0.45658
V20	PLAN TO COMLETE DEGREE WITHIN 5 YRS	0.56480	0.31900	0.13072	-0.41235	-0.9342381	-0.35444
V15	YRS NURSING EXPERIENCE	0.59917	0.35900	0.04000	0.24118	0.2381864	0.34998
V4	NR OF CHILDREN	0.64552	0.41669	0.05769	-0.06604	-0.2725875	-0.45901
RN	MEAN R.N. SCORE	0.65010	0.42262	0.00593	0.13704	-0.4055501E-01	-0.10414
V18	ARE COURSES PREREQUISITES	0.65657	0.43108	0.00846	0.06742	0.1912270	0.11239
V6	GRADUATION FROM INITIAL NURSING PROGR	0.65992	0.43550	0.00441	0.07477	-0.1098003	-0.21036
V16	TITLE OF POSITION	0.66092	0.43682	0.00132	0.02304	-0.7141066E-01	-0.04389
V1	AGE	0.66129	0.43730	0.00048	-0.03529	-0.2502571E-01	-0.04943
(CONSTANT)						4.815900	

DEPENDENT VARIABLE.. F7 IPR-COMMUNICATION

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V15	YRS NURSING EXPERIENCE	0.38207	0.14598	0.14598	0.38207	0.1405417	0.28945
V17	DID BASIC PROGRAM EFFECTIVELY PREPARE	0.50592	0.25595	0.10998	-0.30660	-0.5274890	-0.45446
RN	MEAN R.N. SCORE	0.55557	0.30865	0.05270	-0.16074	-0.1090427	-0.39246
V18	ARE COURSES PREREQUISITES	0.58228	0.33905	0.03040	0.21877	0.3929420	0.32371
V5	TYPE OF PROGRAM	0.63453	0.40262	0.06357	-0.11391	-0.3657432	-0.26094
V1	AGE	0.64494	0.41595	0.01332	0.23756	-0.5546615E-01	-0.15354
V4	NR OF CHILDREN	0.64672	0.41825	0.00231	0.27625	-0.1147172	-0.27076
V6	GRADUATION FROM INITIAL NURSING PROGR	0.64997	0.42247	0.00421	-0.30535	-0.1290024	-0.34641
V20	PLAN TO COMLETE DEGREE WITHIN 5 YRS	0.65389	0.42757	0.00511	-0.13725	-0.2568788	-0.13660
V16	TITLE OF POSITION	0.65813	0.43314	0.00556	-0.06597	-0.1114175	-0.09599
(CONSTANT)						4.850769	

DEPENDENT VARIABLE.. F9 PROFESSIONAL DEVELOPMENT

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V17	DID BASIC PROGRAM EFFECTIVELY PREPARE	0.49095	0.24103	0.24103	-0.49095	-0.6592548	-0.51008
V18	ARE COURSES PREREQUISITES	0.59299	0.35164	0.11061	0.36457	0.5130470	0.39695
RN	MEAN R.N. SCORE	0.61436	0.37744	0.02579	-0.05248	-0.8049235E-01	-0.27394
V5	TYPE OF PROGRAM	0.63844	0.40761	0.03017	0.15045	-0.9153167E-01	-0.06156
V15	YRS NURSING EXPERIENCE	0.64515	0.41621	0.00861	0.20477	0.1182520	0.22782
V1	AGE	0.66550	0.44289	0.02668	0.00194	-0.8308790E-01	-0.21790
V4	NR OF CHILDREN	0.66853	0.44693	0.00404	0.09204	-0.1543086	-0.34086
V6	GRADUATION FROM INITIAL NURSING PROGR	0.67244	0.45218	0.00525	-0.06828	-0.1501138	-0.37972
V16	TITLE OF POSITION	0.67584	0.45676	0.00458	-0.11183	-0.1492394	-0.11547
V20	PLAN TO COMLETE DEGREE WITHIN 5 YRS	0.68160	0.46458	0.00782	-0.07996	-0.2645373	-0.13300
(CONSTANT)						4.719705	

APPENDIX F

MULTIPLE REGRESSION

GRADUATES

DEPENDENT VARIABLE.. F1 LEADERSHIP BEFORE

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V4	NR OF CHILDREN	0.21148	0.04472	0.04472	0.21148	0.2755901	0.39939
V5	TYPE OF PROGRAM	0.29602	0.08763	0.04291	0.20039	0.2371570	0.16202
V13	TITLE OF POSITION BEFORE	0.30293	0.09176	0.00413	0.08051	0.1460961	0.07057
V1	AGE	0.30642	0.09389	0.00213	0.03022	0.1468375	0.28725
V6	GRADUATION FROM INITIAL NURSING PROGR	0.32921	0.10838	0.01449	-0.00236	0.4254817	0.84077
V14	YRS NURSING EXPERIENCE	0.35219	0.12404	0.01566	-0.00215	0.2027014	0.43936
RN	MEAN R.N. SCORE	0.35738	0.12772	0.00368	-0.12445	-0.2513800E-01	-0.05474
V15	DID BASIC PROGRAM EFFECTIVELY PREPARE	0.35899	0.12888	0.00115	0.13071	-0.6525474E-01	-0.04815
(CONSTANT)						-0.2600193	

DEPENDENT VARIABLE.. F2 LEADERSHIP AFTER

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V24	DID BACCALAUREATE PROGRAM EFF PREPARE	0.51260	0.26276	0.26276	-0.51260	-3.875903	-3.29303
V25	FUNCTION AS EFFECTIVELY WITHOUT DEGREE	0.62745	0.39369	0.13093	0.47720	-1.063945	-0.97637
RN	MEAN R.N. SCORE	0.70441	0.49620	0.10250	-0.35887	0.8134482E-01	0.22716
V13	TITLE OF POSITION BEFORE	0.72708	0.52865	0.03246	-0.20827	-1.921881	-1.15461
V19	G.P.A.	0.74986	0.56229	0.03364	0.19069	0.2506878E-01	0.03606
V23	TITLE OF POSITION AFTER	0.76458	0.58458	0.02229	0.26403	-3.361791	-2.38970
V18	WERE COURSES CREDITED TOWARDS DEGREE	0.78651	0.61860	0.03402	0.03361	-0.3243168E-01	-0.03018
V5	TYPE OF PROGRAM	0.79244	0.62796	0.00936	0.11328	1.877449	1.59511
V14	YRS NURSING EXPERIENCE	0.82553	0.68149	0.05353	-0.12157	-0.9174103	-2.41503
V6	GRADUATION FROM INITIAL NURSING PROGR	0.84630	0.71623	0.03474	0.12728	-3.011603	-7.40111
V17	WERE PREREQUISITE COURSES REQUIRED	0.87239	0.76106	0.04483	-0.20976	-0.2747263E-01	-0.02521
V1	AGE	0.91794	0.84262	0.08156	-0.09297	-0.4568573	-1.11150
V4	NR OF CHILDREN	0.92787	0.86094	0.01832	-0.25445	-1.765024	-3.20460
V26	OBTAIN POSITION AFTER DEGREE	0.98106	0.96248	0.10154	-0.26403	1.400155	0.99529
V15	DID BASIC PROGRAM EFFECTIVELY PREPARE	0.98398	0.96823	0.00575	0.03361	0.6000081	0.55843
(CONSTANT)						28.79874	

DEPENDENT VARIABLE.. F3 TEACHING-COLLABORATION BEFORE

SUMMARY. TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
RN	MEAN R.N. SCORE	0.46725	0.21833	0.21833	-0.46725	-0.2163883	-0.52112
V14	YRS NURSING EXPERIENCE	0.60446	0.36538	0.14705	0.43241	0.7165425	1.62859
V6	GRADUATION FROM INITIAL NURSING PROGR	0.71248	0.50763	0.14225	-0.27421	0.7683839	1.60293
V13	TITLE OF POSITION BEFORE	0.72800	0.52999	0.02236	0.32258	0.3036614	0.18287
V4	NR OF CHILDREN	0.73800	0.54464	0.01465	-0.00583	0.2026537	0.31141
V5	TYPE OF PROGRAM	0.75771	0.57413	0.02948	-0.13209	-0.3381837	-0.24477
V1	AGE	0.75837	0.57513	0.00100	0.27400	-0.3960144E-01	-0.08231
(CONSTANT)						-1.478797	

DEPENDENT VARIABLE.. F4 TEACHING-COLLABORATION AFTER

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V25	FUNCTION AS EFFECTIVELY WITHOUT DEGREE	0.62393	0.38929	0.38929	0.62393	-0.7391033	-0.64917
V26	OBTAIN POSITION AFTER DEGREE	0.71661	0.51354	0.12424	-0.49179	-0.1411673E-01	-0.00960
V23	TITLE OF POSITION AFTER	0.83018	0.68920	0.17567	0.29187	-2.069100	-1.40770
RN	MEAN R.N. SCORE	0.84504	0.71409	0.02488	-0.28860	0.2424918	0.64812
V19	G.P.A.	0.85960	0.73890	0.02482	0.31163	-0.3902543	-0.48223
V5	TYPE OF PROGRAM	0.87237	0.76103	0.02213	0.01233	1.334003	1.08477
V20	YRS TO COMPLETE PROGRAM	0.88872	0.78982	0.02878	-0.08598	-0.1762425	-0.25903
V13	TITLE OF POSITION BEFORE	0.90462	0.81834	0.02852	-0.11130	-1.225277	-0.70453
V24	DID BACCALAUREATE PROGRAM EFF PREPARE	0.93292	0.87034	0.05199	-0.46966	-3.386769	-2.75401
V15	DID BASIC PROGRAM EFFECTIVELY PREPARE	0.93822	0.88026	0.00992	-0.03940	0.8847921	0.78815
V1	AGE	0.94009	0.88377	0.00350	0.04471	-0.8827699E-01	-0.20956
V14	YRS NURSING EXPERIENCE	0.94713	0.89705	0.01329	0.13041	-0.4837504	-1.21881
V6	GRADUATION FROM INITIAL NURSING PROGR	0.95203	0.90637	0.00931	-0.02601	-1.969967	-4.63356
V4	NR OF CHILDREN	0.99045	0.98099	0.07463	-0.37066	-1.245449	-2.16424
V18	WERE COURSES CREDITED TOWARDS DEGREE	0.99113	0.98235	0.00135	-0.00134	0.1422923	0.12675
(CONSTANT)						20.32626	

DEPENDENT VARIABLE.. F5 PLANNING-EVALUATION BEFORE

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V15	DID BASIC PROGRAM EFFECTIVELY PREPARE	0.10428	0.01087	0.01087	-0.10428	-0.21313116-01	-0.01795
V6	GRADUATION FROM INITIAL NURSING PROGR	0.15329	0.02350	0.01262	0.09613	1.038158	2.27087
V14	YRS NURSING EXPERIENCE	0.46325	0.21460	0.19111	0.09743	0.8736159	2.08210
V4	NR OF CHILDREN	0.58806	0.34582	0.13122	-0.03307	0.4442778	0.71588
V13	TITLE OF POSITION BEFORE	0.62772	0.39403	0.04821	0.04858	0.2700378	0.17052
V5	TYPE OF PROGRAM	0.64172	0.41180	0.01777	0.03157	-0.4607410	-0.34968
V1	AGE	0.65499	0.42901	0.01721	-0.10423	-0.1898454	-0.41375
RN	MEAN R.N. SCORE	0.66547	0.44285	0.01384	-0.02361	-0.52315206-01	-0.13211
(CONSTANT)						-2.723412	

DEPENDENT VARIABLE.. F6 PLANNING-EVALUATION AFTER

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V24	DID BACCALAUREATE PROGRAM EFF PREPARE	0.53922	0.29075	0.29075	-0.53922	-1.948577	-1.92484
V4	NR OF CHILDREN	0.69875	0.48825	0.19750	-0.44860	-1.420734	-2.99908
RN	MEAN R.N. SCORE	0.71784	0.51529	0.02704	-0.17823	-0.46103568-01	-0.14969
V5	TYPE OF PROGRAM	0.73030	0.53334	0.01804	0.22010	1.187656	1.17319
V17	WERE PREREQUISITE COURSES REQUIRED	0.76171	0.58020	0.04686	-0.17356	0.55161678-01	0.05686
V6	GRADUATION FROM INITIAL NURSING PROGR	0.78909	0.62109	0.04089	0.33378	-2.436360	-6.96136
V14	YRS NURSING EXPERIENCE	0.81161	0.65871	0.03762	-0.30200	-0.7538663	-2.30731
V13	TITLE OF POSITION BEFORE	0.82982	0.68694	0.02823	-0.18058	-1.416089	-0.98913
V20	YRS TO COMPLETE PROGRAM	0.84551	0.71489	0.02795	-0.18050	0.1482037	0.26460
V19	G.P.A.	0.86010	0.73977	0.02488	0.24446	0.3710754	0.62062
V1	AGE	0.88907	0.79045	0.05068	-0.36898	-0.8207831	-2.32176
V26	OBTAIN POSITION AFTER DEGREE	0.92361	0.85306	0.06261	-0.30085	1.409863	1.18504
V18	WERE COURSES CREDITED TOWARDS DEGREE	0.94843	0.89953	0.04646	-0.02860	-0.5629370	-0.60915
V23	TITLE OF POSITION AFTER	0.96514	0.93150	0.03198	0.39619	-2.219503	-1.83434
V25	FUNCTION AS EFFECTIVELY WITHOUT DEGREE	0.97082	0.94250	0.01099	0.33370	-0.4721754	-0.50378
(CONSTANT)						22.75506	

DEPENDENT VARIABLE.. F7 IPR-COMMUNICATION BEFORE

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
RN	MEAN R.N. SCORE	0.50170	0.25171	0.25171	-0.50170	-0.1997457	-0.72892
V13	TITLE OF POSITION BEFORE	0.54492	0.29693	+0.04523	-0.08231	-0.2788485	-0.25446
V5	TYPE OF PROGRAM	0.58954	0.34756	0.05063	-0.09319	-0.5153867	-0.56524
V6	GRADUATION FROM INITIAL NURSING PROGR	0.61663	0.38023	0.03267	0.03266	0.4727133	1.49430
V14	YRS NURSING EXPERIENCE	0.67925	0.46139	0.08116	0.05414	0.3168927	1.09140
V4	NR OF CHILDREN	0.70282	0.49395	0.03257	-0.08523	0.1364140	0.31764
V15	DID BASIC PROGRAM EFFECTIVELY PREPARE	0.70952	0.50343	0.00947	-0.13807	0.9956206E-01	0.12114
(CONSTANT)						2.029211	

DEPENDENT VARIABLE.. F8 IPR-COMMUNICATION AFTER

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V26	OBTAIN POSITION AFTER DEGREE	0.51867	0.26902	0.26902	-0.51867	0.4161465	0.32987
V24	DID BACCALAUREATE PROGRAM EFF PREPARE	0.68644	0.47119	0.20217	-0.46994	-3.132399	-2.96773
RN	MEAN R.N. SCORE	0.74468	0.55455	0.08336	-0.50338	0.1070635E-01	0.03334
V23	TITLE OF POSITION AFTER	0.78875	0.62213	0.06758	0.05890	-2.730543	-2.16444
V14	YRS NURSING EXPERIENCE	0.82614	0.68251	0.06039	-0.06670	-0.6433118	-1.88844
V4	NR OF CHILDREN	0.86451	0.74738	0.06487	-0.24499	-1.164061	-2.39680
V6	GRADUATION FROM INITIAL NURSING PROGR	0.88196	0.77786	0.03047	0.09157	-1.950086	-5.34413
V13	TITLE OF POSITION BEFORE	0.90380	0.81686	0.03900	-0.21527	-1.150106	-0.77049
V20	YRS TO COMPLETE PROGRAM	0.93615	0.87638	0.05952	-0.04970	-0.9258869E-01	-0.15855
V5	TYPE OF PROGRAM	0.95449	0.91105	0.03467	-0.02648	1.104919	1.04683
V25	FUNCTION AS EFFECTIVELY WITHOUT DEGREE	0.97787	0.95624	0.04519	0.41422	-0.8819956	-0.90258
V17	WERE PREREQUISITE COURSES REQUIRED	0.98212	0.96457	0.00833	-0.26933	0.2087204	0.21359
V15	DID BASIC PROGRAM EFFECTIVELY PREPARE	0.98861	0.97735	0.01278	-0.13067	0.3897579	0.40451
V1	AGE	0.99172	0.98351	0.00616	-0.06436	-0.1065124	-0.28897
V18	WERE COURSES CREDITED TOWARDS DEGREE	0.99238	0.98481	0.00131	0.09796	0.1096830	0.11264
(CONSTANT)						22.15690	

• MULTIPLE REGRESSION • • • • • • • • • • • • • VARIABLE LIST 1
REGRESSION LIST 1

DEPENDENT VARIABLE.. F9 PROFESSIONAL DEVELOPMENT BEFORE

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
RN	MEAN R.N. SCORE	0.15954	0.02545	0.02545	-0.15954	-0.70032736-01	-0.19396
V5	TYPE OF PROGRAM	0.21608	0.04669	0.02124	-0.12818	-0.2571530	-0.21404
V14	YRS NURSING EXPERIENCE	0.23489	0.05517	0.00848	0.01307	0.5163937E-01	0.13497
V4	NR OF CHILDREN	0.25032	0.06266	0.00749	0.09082	0.1366549	0.24149
V6	GRADUATION FROM INITIAL NURSING PROGR	0.28237	0.07973	0.01707	-0.04116	0.2902864	0.69641
V1	AGE	0.29048	0.08438	0.00464	0.05776	0.1301174	0.31100
V15	DID BASIC PROGRAM EFFECTIVELY PREPARE	0.29880	0.08928	0.00491	-0.12669	-0.1392856	-0.12862
V13	TITLE OF POSITION BEFORE	0.30486	0.09294	0.00366	0.06824	0.1115262	0.07724
(CONSTANT)						1.977809	

DEPENDENT VARIABLE.. F10 PROFESSIONAL DEVELOPMENT AFTER

SUMMARY TABLE

VARIABLE		MULTIPLE R	R SQUARE	RSQ CHANGE	SIMPLE R	B	BETA
V24	DID BACCALAUREATE PROGRAM EFF PREPARE	0.41810	0.17481	0.17481	-0.41810	-2.413642	-2.52654
V26	OBTAIN POSITION AFTER DEGREE	0.51734	0.26764	0.09284	-0.32110	-0.1733567	-0.15183
V15	DID BASIC PROGRAM EFFECTIVELY PREPARE	0.57399	0.32946	0.06182	-0.00420	0.8602734	0.98646
V5	TYPE OF PROGRAM	0.63256	0.40013	0.07067	-0.06220	0.8462533	0.88584
V17	WERE PREREQUISITE COURSES REQUIRED	0.67587	0.45679	0.05667	-0.08611	0.8357951	0.94499
V20	YRS TO COMPLETE PROGRAM	0.70123	0.49172	0.03493	0.09687	0.3683660	0.69693
V18	WERE COURSES CREDITED TOWARDS DEGREE	0.72287	0.52254	0.03082	0.00473	0.3108930	0.35650
V6	GRADUATION FROM INITIAL NURSING PROGR	0.74996	0.56245	0.03990	-0.04340	-2.580839	-7.81432
V14	YRS NURSING EXPERIENCE	0.77250	0.59675	0.03431	0.00427	-0.9035628	-2.93054
V19	G.P.A.	0.79678	0.63486	0.03811	0.24762	0.5283994	0.93648
V25	FUNCTION AS EFFECTIVELY WITHOUT DEGREE	0.82523	0.68100	0.04614	0.38815	-1.113720	-1.25923
V4	NR OF CHILDREN	0.87602	0.76742	0.08642	-0.11372	-1.200168	-2.68470
V13	TITLE OF POSITION BEFORE	0.92278	0.85153	0.08411	-0.00163	-1.264519	-0.93598
V23	TITLE OF POSITION AFTER	0.95173	0.90579	0.05426	0.17931	-2.209718	-1.93526
V1	AGE	0.99988	0.99976	0.09397	0.03429	-0.6180027	-1.85247
(CONSTANT)						22.18336	